MATHS

BOOKS - PRINCETON MATHS (ENGLISH)

PROBLEM SETS
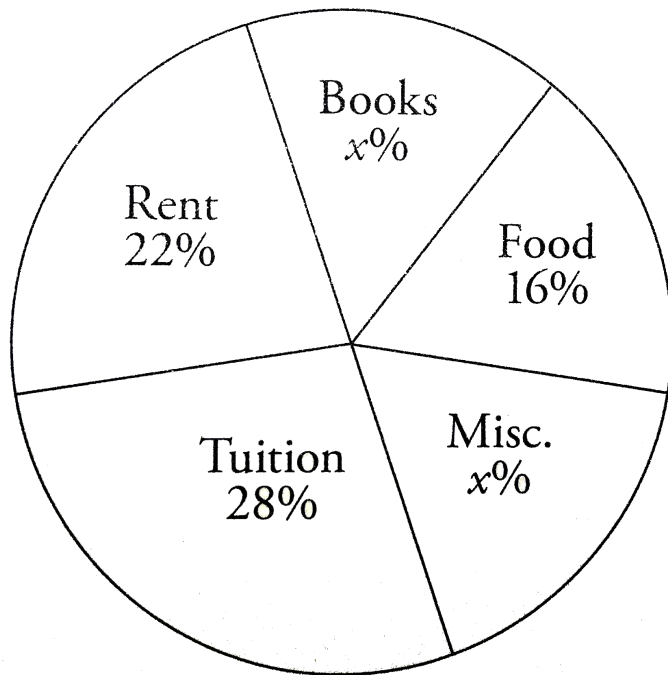
Example

1.

What is the value of x?

Books
$x\%$

Rent
22%

Food
16%

Tuition
28%

Misc.
$x\%$
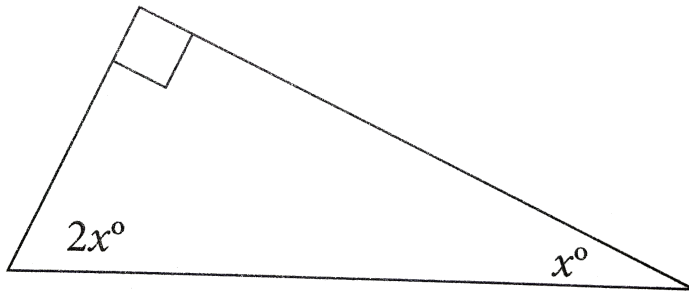
2.

The chart above shows Orwell's projected expanditures for this freshman year at River State University. If the plans to spend a total of $10,000 for the year, how many dollars will Orwell spend on books?

3. If the function r(s) is defined as 2s+3 for all values of s and r(4)=x, what is the value of r(x)?

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Problem Set 1 Plugging In

1. Sinead has 4 more than three times the number of hats the maria has. If maria has x

hats,then in term of x,how many hats does sinead have?

A. $3x + 4$

B. $3(x + 4)$

C. $4(x + 3)$

D. $4(3x)$

Answer: A

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2. When 6 is subtracted from 10p, the result is t. which of the following equation represent the statement above?

A. $t = 6(p - 10)$

B. $t = 6p - 10$

C. $t = 10(6 - p)$

D. $10p - 6 = t$

Answer: D

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3. Sailly scored a total point of $4b + 12$ point in the certain basketball game. She scored the same number of point in each of the game's 4 periods. In term of b, how many points did she scored in each point?

A. $b + 3$

B. $b + 12$

C. $4b + 12$

D. $16b + 48$

Answer: A

4. $u = \dfrac{1}{2}at^2$

The velocity,v,of an object t seconds after beginning to accelerate from rest at a constant acceleration,a, can be found using the equation above. According to the formula, what is the ratio of velocity of the object t seconds after begins to accelerate to the velocity of the object 2.5t seconds after the object begins to accelerate?

A. $\dfrac{4}{25}$

B. $\dfrac{2}{5}$

C. $\dfrac{5}{2}$

D. $\dfrac{25}{4}$

Answer: A

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5. Roseanne is 6 years younger than Tom will be in 2 years. Roseanne is now x years old. In term of x, how old was Tom 3 years ago?

A. $x - 7$

B. $x - 1$

C. $x + 1$

D. $x + 3$

Answer: C

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6. A phone company charges 10 cents per minute for the first 3 minute of a call and 10 -c

cents for each minute thereafter. What is the cost, in cents, of a 10 -minute phonecall?

A. $100c + 70$

B. $30 + 7c$

C. $100 - 7c$

D. $100 - 70c$

Answer: C

7. If $0 < pt < 1$ and p is negative integers, which of the following must be less than -1?

A. p

B. $p - t$

C. $t + p$

D. $2t$

Answer: C

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8. $y^2 - 8y + 2$

Which of the following is equivalent to the expression above?

A. $(y - 4)^2 - 14$

B. $(y - 4)^2 + 14$

C. $(y + 4)^2 - 14$

D. $(y + 4)^2 + 14$

Answer: A

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9. If x and y are positive integers and $\sqrt{x} = y + 3$,then what is the value of y^2?

A. $x - 9$

B. $x + 9$

C. $x - 6\sqrt{x} + 9$

D. $x^2 - 6\sqrt{x} + 9$

Answer: C

10. If cupcakes are on sale at 8 for c cents, and gingerbread squares are on sale at 6 for g cents, what is the cost, in cents, of 2 cupcakes and 1 gingerbread square?

A. $8c + 3g$

B. $\dfrac{8c + 6g}{3}$

C. $\dfrac{8c + 3g}{14}$

D. $\dfrac{3c + 2g}{12}$

Answer: D

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11. If the length of the sides of the square is x+1, which of the following is the length of the diagonal of square?

A. $x^2 + 1$

B. $x\sqrt{2} + \sqrt{2}$

C. $x^2 + 2$

D. $\sqrt{2x} + \sqrt{2}$

Answer: B

Problem Set 2 More Plugging In

1. Jim and Pam bought x quarts of ice cream for a party. If 10 people attended the party, including Jim and Pam, ate all the ice cream, and each person ate the same account of ice cream, which of the following represents the account of ice cream, in quarts, eaten by each person at the party?

A. $10x$

B. $5x$

C. $\dfrac{x}{5}$

D. $\dfrac{x}{10}$

Answer: D

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2. Addison has a reading assigment to complete. The number of pages he has left to read d days after being given the assigment

can be modeled by the equation $n = 252 - 47d$, where n is the number of pages left to read. What is the meaning of 252 in the equation?

A. Addison reads 252 pages per day

B. Addison reads 252 pages per hour

C. Addison's book contains 252 pages.

D. Addison will complete the book in 252 days.

Answer: C

3. If $3x - y = 12$, which of the following is equivalent to $\dfrac{y}{3}$?

A. $x - 4$

B. $3x - 4$

C. $9x - 12$

D. $3x + 4$

Answer: A

4. When x is divided by 3 remainder is z.In terms of z, which of the following could be equal to x?

    A. $z - 3$

    B. $3 - z$

    C. $3z$

    D. $6 + z$

Answer: D

5.
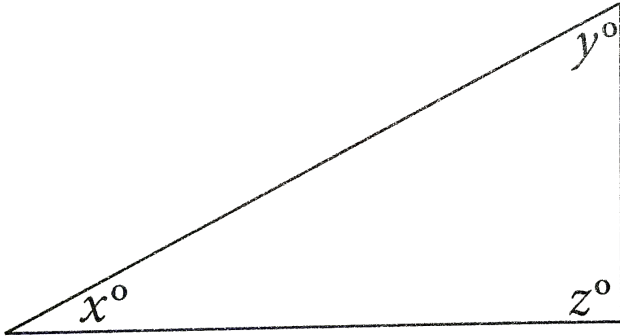
In the figure above, 2x = y. Which of the following is equivalent to z?

A. $180 + 2x$

B. $180 + x$

C. $180 - 3x$

D. $180 - 4x$

Answer: C

6. The 2005 to 2015 population density of a certain town can be modeled by the equation $d = 21.3y + 1,927.3$, where y represents the number of years since 2005 and d represent the population density .Which of the following

best describes the meaning of the number 21,3

in the equation?

A. The estimated difference between the

population density in 2005 and 2015.

B. The estimated increase in the population

density each year.

C. The population density in 2005

D. The total population in 2005

Answer: B

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7. The value of a certain recangular solid is 12x. If the dimensions of the solid are the intigers x,y,andz, what is the greatest possible value of z?

A. 24

B. 12

C. 6

D. 4

Answer: B

8. If $y = b^{\frac{1}{3}}$, where $b > 0$,what is b in term of y?

A. $\dfrac{-1}{y^3}$

B. $\dfrac{1}{y^3}$

C. $-\sqrt[3]{y}$

D. $\sqrt[3]{y}$

Answer: B

9. If $r = \dfrac{6}{3x + 2}$ and $tr = \dfrac{2}{3s + 2}$,what is the value of t?

A. $\dfrac{1}{4}$

B. $\dfrac{1}{3}$

C. 3

D. 4

Answer: B

10. When a is divided by 7 ,the remainder is 4. when b is divided by 3, the remainder is 2. If $o < a < 24$ and $2 < b < 8$, which of the following could have remainder of 0 when divided by 8?

A. $\dfrac{a}{b}$

B. $\dfrac{b}{a}$

C. $a + b$

D. ab

Answer: C

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11. If $3x$, $\dfrac{3}{x}$, and $\dfrac{15}{x}$ are integers, which of the following must also be an integers?

I. $\dfrac{x}{3}$

II. X

III. $6x$

    A. II only

    B. III only

C. I and III only

D. I, II and III

Answer: B

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Problem Set 3 Plugging In The Answer Choices

1. If x is a positive integers and $x + 12 = x^2$, what is the value of x?

A. 2

B. 4

C. 6

D. 12

Answer: B

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2. If twice the sum of three consecutive numbers is 12, and the two lowest numbers add up to 3, what is the highest number?

A. 2

B. 3

C. 6

D. 9

Answer: B

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3. If $2^x = 8^{x+4}$

A. 4

B. 6

C. 8

D. 64

Answer: B

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4. If Jane bought 3 equally priced shirts on sale, she would have 2 dollars left over. If instead she bought 10 equally priced of socks, she would have 7 dollars left over. If the prices

of both shirts and socks are integers, which of the following, in dollars, could be the amount that Jane has to spends?

A. 28

B. 32

C. 47

D. 57

Answer: C

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5. During a vacation together, Bob spent twice as much as Josh, who spent four times as much as Ralph. If Bob and Ralph together spent $180, how much did Josh spend?

    A. 20

    B. 80

    C. 120

    D. 160

Answer: B

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6. Tina has half as many marbles as louise. If louise gave away 3 of her marbles and lost 2 more, she would have 1 more marbles than tina. How many marbles does tina have?

A. 3

B. 5

C. 6

D. 7

Answer: C

7. In a bag of jellybeans, $\dfrac{1}{3}$ are cherry and $\dfrac{1}{4}$ are licorice . If the remainning 20 jellybeans are orange, how many jellybeans are in the bag?

A. 16

B. 32

C. 36

D. 48

Answer: D

8. Which of the following is the solution set to the equation $y - 2 = \sqrt{4y + 28} - 6$?

A. $[-6, 0, 2]$

B. $[-6, 2]$

C. $[-6]$

D. $[2]$

Answer: D

9. If the circumference of the circle is equal to twice its area, which of the following is equal to the area of this circle?

A. π

B. 2π

C. 4π

D. 16π

Answer: A

10. If $12y = x^3$ and x and y are positive integers, what is the least possible value for y?

A. 6

B. 18

C. 144

D. 216

Answer: B

11. If x^2 is added to $\dfrac{5}{4y}$, the sum is $\dfrac{5+y}{4y}$. If y is a positive integer, which of the following is value of x?

A. $\dfrac{1}{4}$

B. $\dfrac{1}{2}$

C. $\dfrac{4}{5}$

D. 1

Answer: B

Problem Set 4 More Plugging In The Answer Choices

1. If $\dfrac{a - 4}{28} = \dfrac{1}{4}$, what is the value of a?

A. 11

B. 10

C. 7

D. 6

2. If the area of $\triangle ABC$ is 21, and the length of the height minus the length of the base equals 1, which of the following is equal to the base of the triangle ?

A. 2

B. 4

C. 6

D. 7

Answer: C

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3. If $d^2 = \sqrt{4} + d + 10$, what is the value of d?

A. 2

B. 3

C. 4

D. 10

Answer: C

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4. If $\dfrac{4}{x-1} = \dfrac{x+1}{2}$, which of the following is apossible value of x?

A. -1

B. 1

C. 2

D. 3

Answer: D

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5. $f(x) = \dfrac{1}{(x-3)^2 - 6(x-3) + 9}$

For what value of x is the function f defined above un defined?

A. -6

B. -3

C. 3

D. 6

Answer: D

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6. If $16,000 = 400(x + 9)$, what is the value of x?

A. 391

B. 310

C. 40

D. 31

Answer: D

7. What is the radius of a circle with an area of $\dfrac{\pi}{4}$?

A. 0.2

B. 0.4

C. 0.5

D. 2.0

Answer: C

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8. Jutiet is painting figuriness of superheroes as part of an art project. She paints 3 figuriness per day for the first 5 days of the project. Realizing that she needs to finish

sooner, Jutiet increase her workload to paint 5 figurines per day for the remaining duration of the project. She plans to sell 80% of the figurines. What is the least number of days Jutiet needs to paint figurines for the rest of the project in order to sell at least 112 figurines?

A. 23

B. 25

C. 27

D. 28

Answer: B

9. If 20 percent of x is 36 less than x percent of

x-70, what is the value of x?

A. 140

B. 120

C. 100

D. 50

Answer: B

10. If $x^2 = y^2$ and $(x - y)^2 = 2x$, then which of the following is a possible value of y?

A. 64

B. 16

C. 8

D. 4

Answer: D
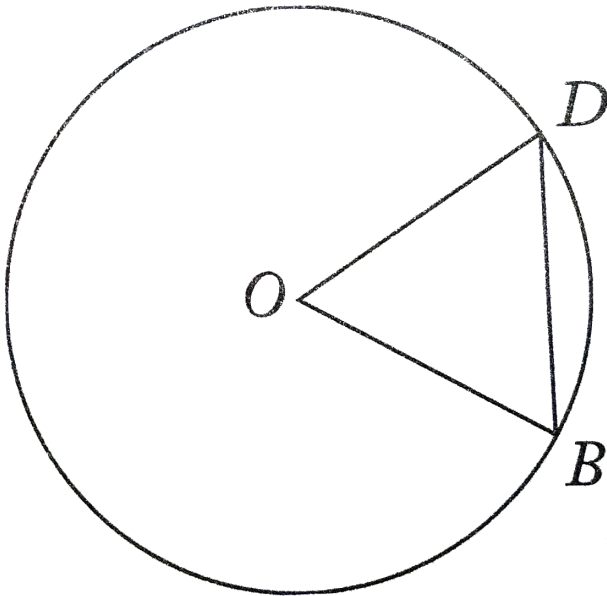
11.

In the circle with center O, OD=BD and arc

$DB = 2\pi$. What is the area of the circle?

A. 36π

B. 16π

C. 12π

D. 4π

Answer: A

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Problem Set 5 Estimating

$x°$ $45°$

1.
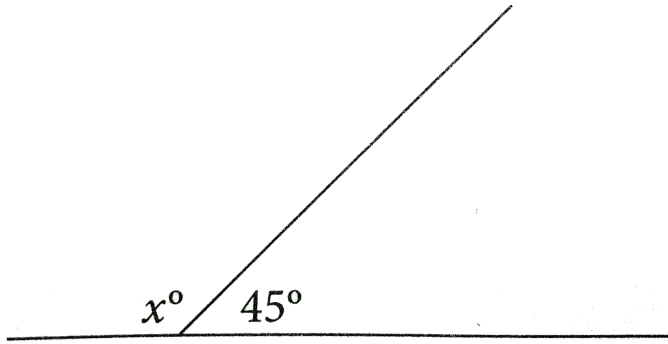
What is the value of 2x?

A. 270

B. 135

C. 90

D. 67.5

Answer: A
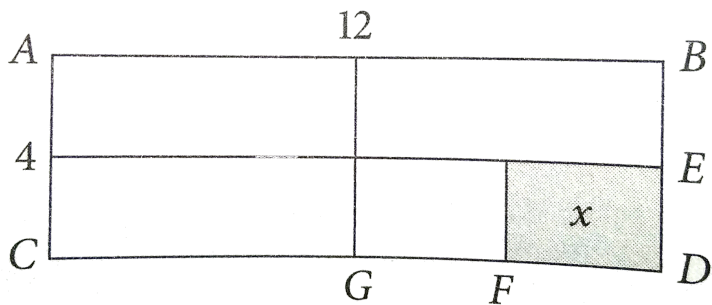
2.

If F is equidistant from G and D, and E in equidistant from B and D, what fractional part of rectangle ABCD is area x?

A. $\dfrac{1}{16}$

B. $\dfrac{1}{8}$

C. $\dfrac{1}{4}$

D. $\dfrac{1}{2}$

Answer: B

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3. If Sarah bought 12 pies for $30, how many pies could she have bought for $37.50 at the same rate?

A. 9

B. 12

C. 15

D. 24

Answer: C

4. If a runner completes one lap of a track in 64 seconds, approximately how many minutes will it take her to run 40 laps at the same speed?

A. 30

B. 43

C. 52

D. 128

Answer: B

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5.
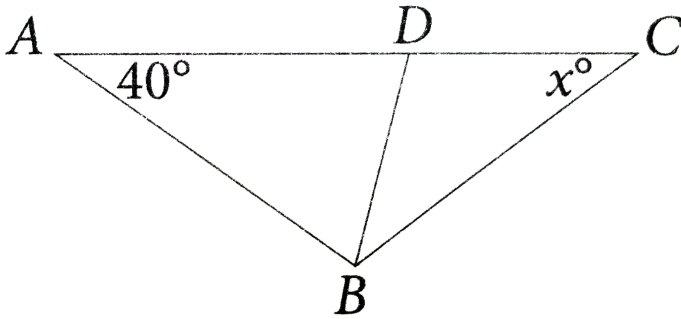
In the figure above, DB=DC and AB=AD. What is

the value of x?

A. 110

B. 70

C. 55

D. 35

Answer: D

6. Martina wants to buy as many felt-tip pens as possible for $10. If the pens cost between $1.75 and $2.30, what is the greatest number of pens Martina can buy?

A. 4

B. 5

C. 6

D. 7

Answer: B

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7. If 1.2 is p percent of 600, what is the value of p?

A. 0.002

B. 0.05

C. 0.2

D. 5

Answer: C

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8. If 40 gumballs were weighed on a balancing scale, the gumballs would weigh approximately $12\dfrac{1}{8}$ ounces. At the rate, what is the approximately number of gumballs it would take to weigh 36 ounces on the balancing scale?

A. 60

B. 100

C. 120

D. 180

Answer: C

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9.
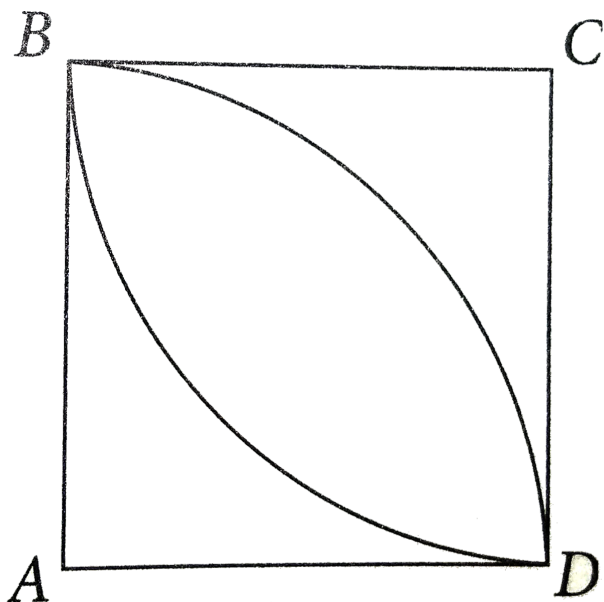
In the figure above, ABCD is a square with sides of 4. What is the length of arc BD?

A. 8π

B. 4π

C. 2π

D. π

Answer: C

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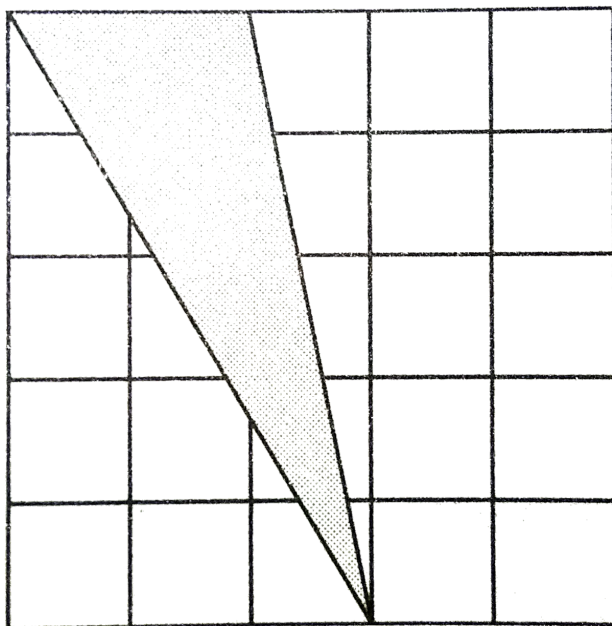
10.

Each of the small squares in the figure above has an area of 4. If the shortest , what is the area of the shaded triangle?

    A. 40

    B. 24

C. 20

D. 16

Answer: C

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S

R

5

6

U T

8
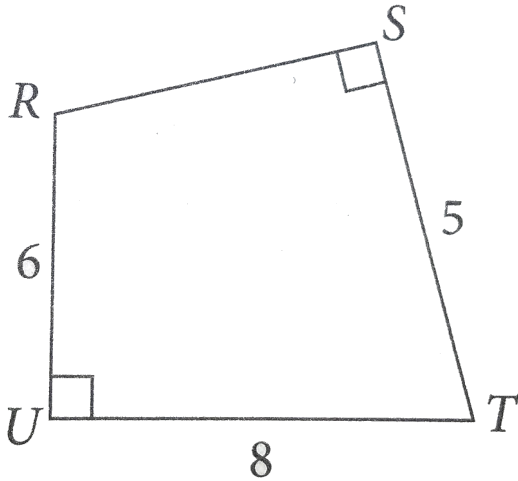
Note: Figure not drawn to scale.

11.

In the figure above, what is the length of RS?

A. 10

B. $5\sqrt{3}$

C. 8

D. $2\sqrt{3}$

Answer: B

Problem Set 6 Fractions Decimals And Percents

1. A big-scores TV is on sale at 15% off the regular price. If the regular price of the TV is $420, what is the sale price?

    A. 63

    B. 357

C. 405

D. 483

Answer: B

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2. Which of the following is the decimal form of $70 + \dfrac{7}{10} + \dfrac{3}{1,000}$?

A. 70.0703

B. 70.7003

C. 70.703

D. 70.73

Answer: C

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3. If n is six more than two thirds of twelve, what is the value n?

A. 10

B. 12

C. 14

D. 18

Answer: C

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4. Walking at a constant rate, Stuart takes 24 minutes to walk to the nearest bus stop and $\frac{1}{3}$ of that time to walk to the movie theater. If takes him half the time to walk to school than it does for him to walk to the movie theater.

How many minutes does it take stuart to walk to school?

A. 36

B. 24

C. 8

D. 4

Answer: D

5. What is the value of x if $\dfrac{\frac{1}{2}}{x} = 4$?

A. 8

B. 2

C. $\dfrac{1}{4}$

D. $\dfrac{1}{8}$

Answer: D

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6. If x% of y is 10, which of the following is equal to y% of x?

A. 1

B. 5

C. 10

D. 90

Answer: C

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7. A certain drink is made by adding 4 parts water to 1 part drink mix. If the amount of water is doubled, and the amount of drink mix is quadrupled, what is the new mixture is drink mix?

A. $33\dfrac{1}{3}$ %

B. 50 %

C. $66\dfrac{2}{3}$ %

D. 80 %

Answer: A

8. During his 12 minute exercise session, Brain spent 35% of his time doing sit ups. How many seconds of Brain's exercise session were spent doing sit-ups?

A. 4.2

B. 35

C. 252

D. 720

Answer: C

9. Set A consists only of fractions with numerator of 1 and a denominator d such that $1 < d < 8$, where d is an integer. If Set B consists of the reciprocals of the fractions with odd denominators in Set A, then what is the product of all the numbers that the elements of either Set A or Set B?

A. $\dfrac{1}{96}$

B. $\dfrac{1}{48}$

C. $\dfrac{1}{24}$

D. 1

Answer: B

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10. The functions r is defined as $g(x) = \dfrac{x^2}{3 - |x - 4|}$. For which values of x is

g(x) NOT defined?

A. x=4 and x=7

B. x=3 and x=4

C. x=3 and x=7

D. x=1 and x=7

Answer: D

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11. If a, b, and c are the distinct positive integers, and 10% of abc is 5, then which of the following is a possible value of a+b?

A. 3

B. 5

C. 8

D. 25

Answer: A

1. Three consecutive integers odd up to 258.
What is the smallest integer?

A. 58

B. 85

C. 86

D. 89

Answer: B

2. A factory produces 6,000 plates per day. If one out of 15 plates is broken, how many unbroken plates does the factory produce each day?

A. 5, 800

B. 5, 600

C. 800

D. 400

Answer: B

3. If takes 4 friends 24 minutes to wash all the windows in Maria's house. The friends all work at the same rate. How long would it take 8 friends working at the same rate, to wash all the windows in Maria's house?

A. 48

B. 20

C. 12

D. 8

Answer: C

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4. The value of t is inversely proportional to the value of w.If values of w increase by a factor of 5, what happen to the values of t?

A. t increase by a factor of 5.

B. t increase by a factor of 2

C. t decrease by a factor of 2

D. t decrease by a factor of 5.

Answer: D

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5. A drawer holds only blue socks and white socks. If the ratio of blue socks to white socks is 4:3. which of the following could be the total number of socks in the drawer?

A. 4

B. 7

C. 12

D. 24

Answer: B

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6. The probability of choosing a caramel from a certain bag of candy is $\frac{1}{5}$, and the probability of choosing a butterscotch is $\frac{5}{8}$. If the bag

contains 40 pieces of candy, and the only types of candy in the bag are caramel, butterscotch, and fudge, how many pieces of fudge are in the bag?

A. 5

B. 7

C. 8

D. 25

Answer: B

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7. Dixie spent an average of x dollars on each of 5 shirts and an average of y dollars on each of 3 hats. In terms of x and y, how many dollars did she spend on shirts and hats?

A. $5x + 3y$

B. $15(x + y)$

C. $8xy$

D. $15xy$

Answer: A

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Earnings (dollars)	
Kiana	Sydney
13.70	12.50
10.20	11.40
14.80	13.20
12.10	10.90
y	14.00

8.

Sydney and Kiana each worked for five days doing chores and each earned a certain amount of money per day. The table above shows the amount that each person earned each day. Kiana's mean earning for the five days was $0.20 less than Sydney's mean

earning for the five days. What is the value of y?

A. 10.20

B. 11.30

C. 11.80

D. 12.20

Answer: A

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9. If the ratio of $\frac{1}{6}$, $\frac{1}{5}$ is equal to the ratio of 35 to x, what is the value of x?

A. 24

B. 30

C. 36

D. 42

Answer: D

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10. An artist makes a certain shade of green paint by mixing blue and yellow inn a ratio of 3:4. She makes orange by mixing red and yellow in the ratio of 2:3. If on one day she mixes both green and orange and uses equal amounts of blue and red paint, what fractional part of the paint that she uses is yellow?

A. $\dfrac{7}{12}$

B. $\dfrac{17}{29}$

C. $\dfrac{7}{5}$

D. $\dfrac{12}{17}$

Answer: B

11. The areas of two circles are in a ratio of 4:9. If both radii are integers and $r_1 - r_2 = 2$, which of the following is the radius of the larger circle?

A. 4

B. 6

C. 8

D. 9

Answer: B

Problem Set 8 Charts And Data

	Original Price	Sale Price
Store *A*	$25	$20
Store *B*	$20	$15
Store *C*	$30	$25
Store *D*	$35	$30

1.

The Chart above shows the original and sale

prices of a certain item at each of four different stores. Which of the following stores provides a discount of 20% or more on this item?

I. Store A

II. Store B

III. Store C

A. I only

B. III only

C. I and II only

D. I and III only

Answer: C

2.
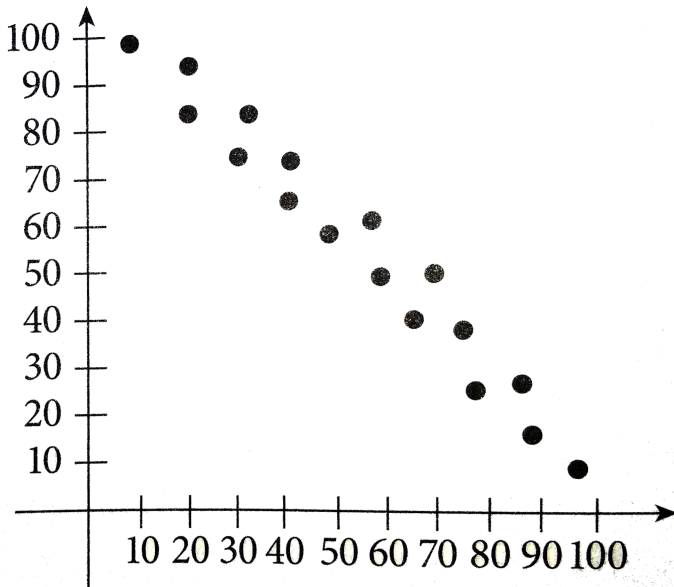
Which of the following is most likely the slope

of the line of best fit for the scatterplot above?

A. -10

B. -1

C. 1

D. 10

Answer: B

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Favorite Ice Cream Flavors

	Men	Women	Total
Chocolate	74	63	137
Vanilla	68	22	90
Strawberry	17	39	56
Cookie Dough	51	87	138
Mint Chip	65	14	79
Total	275	225	500

3.

The table above shows the result of a random survey of 500 men and women. Each individual chose a flavor of ice cream that was his or her favorite.

Q. Approximately what percent of the men chose mint chip as their favorite ice cream flavor?

A. 0.25

B. 0.5

C. 0.65

D. 0.8

Answer: A

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	Men	Women	Total
Chocolate	74	63	137
Vanilla	68	22	90
Strawberry	17	39	56
Cookie Dough	51	87	138
Mint Chip	65	14	79
Total	275	225	500

4.

The table above shows the result of a random survey of 500 men and women. Each individual chose a flavor of ice cream that was his or her favorite.

Q. If a woman is chosen at random, what is the probability that her favorite ice cream flavor is strawberry?

A. 0.06

B. 0.09

C. 0.11

D. 0.17

Answer: D

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Bacteria Reproduction

Time (in seconds) t	Population (in thousands) p
1	2
2	6
3	18
4	54

5.

The table above shows the population growth of certain bacteria over four seconds. Which one of the following equations shows the relationship between t and p, according to the table?

A. $p = 3t$

B. $p = 2t^2$

C. $p = 2 \times 3t$

D. $p = 2 \times 3^{t-1}$

Answer: D

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6. A coffee distributes randomly polled 200 employees from each of two companies and asked each employee how many cups of coffee he or she drinks per day. The data is shown in the table below.

Employee Coffee Survey

Number of Cups of Coffee	0	1	2	3	4
Company X	5	25	30	40	100
Company Y	20	25	35	45	75

The are 4,000 employees at Company X and 3,000 employee at Company Y.

Q. Of the employees polled at Company X, approximately what is the average number of cups of coffee consumed per employee on a given day?

A. 1

B. 2

C. 3

D. 4

Answer: C

7. A coffee distributes randomly polled 200 employees from each of two companies and asked each employee how many cups of coffee he or she drinks per day. The data is shown in the table below.

Employee Coffee Survey

Number of Cups of Coffee	0	1	2	3	4
Company X	5	25	30	40	100
Company Y	20	25	35	45	75

The are 4,000 employees at Company X and

3,000 employee at Company Y.

Q. Based on the poll, the number of employees

at Company Y who drank 0 cups of coffee was

what percent greater than the nuumber of

employees at Company X who drank 0 cups of

coffee?

A. 0.75

B. 1

C. 3

D. 4

Answer: C

▶ **Watch Video Solution**

8. A coffee distributes randomly polled 200 employees from each of two companies and asked each employee how many cups of coffee he or she drinks per day. The data is shown in the table below.

Employee Coffee Survey

Number of Cups of Coffee	0	1	2	3	4
Company X	5	25	30	40	100
Company Y	20	25	35	45	75

The are 4,000 employees at Company X and

3,000 employee at Company Y.

Q. What is the difference between the

expected total number of employees who

drink 1 cup of coffee at Company X and the

expected total number of employees who

drink 1 cup of coffee at Company Y?

A. 0

B. 25

C. 125

D. 1, 000

Answer: C

Cheese Pizza (dollars)
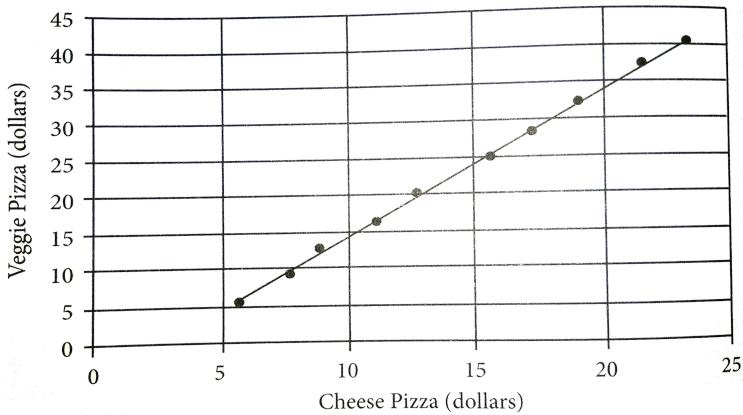
9.

The scatterplot above shows the price, in

dollars, for both cheese pizza and a veggie

pizza for ten different pizzerias. The line of

best fit is also shown. According to the line of

best fit, which of the following is closer to the

predicted increase in the price of a veggie

pizza, in dollars, for every 1 dollar increase in

the price of a cheese pizza?

A. 1.5

B. 2.0

C. 2.5

D. 3.0

Answer: B
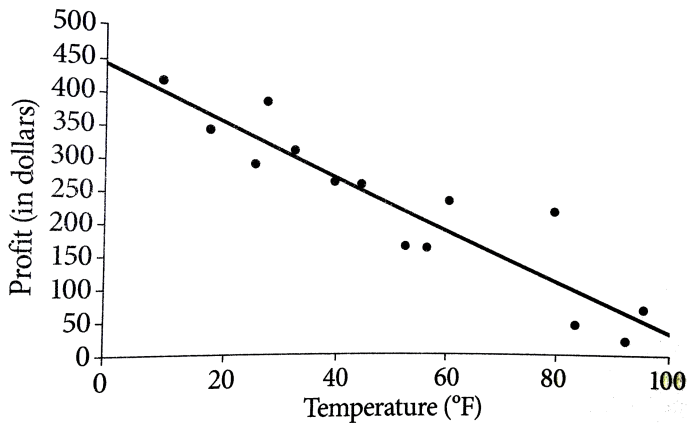
10.

The scatterplot above shows the daily profit made by a school store from selling sweatshirts and the average daily temperature for several days in the year 2004. The line of

best fit is also shown and has equation

y=-4.1x+446. Which of the following best

explains hoow the number -4.1 in the

equation relates to the scatterplot?

A. For every $1°$ increase in average daily

temperature, the school store's profit fell

by approximately $4.10/

B. For every $1°$ increase in average daily

temperature, the school store's profit fell

by approximately $4.10/

C. For every $4.1°$ increase in average daily temperature, the school store's profit fell by approximately $4.10/

D. For every $4.1°$ increase in average daily temperature, the school store's profit fell by approximately $4.10/

Answer: A

▶ View Text Solution

Temperature (°F)

Profit (in dollars)
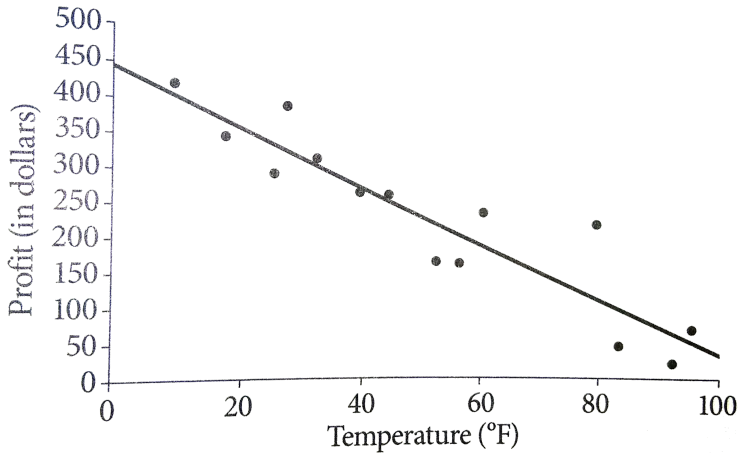
11.

In a given school week the average daily temperature is $20°\,F$ on Monday, Tuesday, and Wednesday and $30°F$ on Thursday and Friday. Based on the line of best fit, what was the school store's approximately profit during this school week?

A. 325

B. 650

C. 1475

D. 1700

Answer: D

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Problem Set 9 Exponents Roots And Equations

1. If $t^3 = -8$, what is the value of t^2?

A. -4

B. -2

C. 2

D. 4

Answer: D

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2. If $60 = (7 + 8)(x - 2)$, what is the value of x?

A. 10

B. 9

C. 7

D. 6

Answer: D

▶ Watch Video Solution

3. If $4x - 2y = 10$ and $7x + 2y = 23$,what is the value of x?

A. $\dfrac{1}{3}$

B. 1

C. 3

D. 13

Answer: C

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4. Which of the following equation is equal to

$6y + 6x = 66$?

A. $33 = x + y$

B. $11 - x = y$

C. $11 - 2x = y$

D. $4y - 4x = 44$

Answer: B

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5. For their science homework, Brenda and Dylan calculated the volume of air that filled a spherical basketball. If the diameter of the

basketball was 6, what was the volume of the air inside the basketball, to the nearest integer?

A. 44

B. 100

C. 113

D. 226

Answer: C

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6. Which of the following is equivalent to $\dfrac{\sqrt{a} \times \sqrt{b}}{3\sqrt{a} - 2\sqrt{b}}$?

A. $\dfrac{\sqrt{b}}{\sqrt{a}}$

B. $\sqrt{b}$

C. $\dfrac{2\sqrt{a}}{b}$

D. $\sqrt{ab}$

Answer: B

7. On a certain test, Radeesh earned 2 points for every correct answer and lost 1 point for every incorrect answer.If he answerred all 30 questions on the test and received a score of 51, how many questions did Radeesh answer incorrectly?

A. 3

B. 7

C. 15

D. 21

Answer: A

8. Which of the following equivalent to the expressions $\left(\dfrac{a^{\frac{1}{4}} b^3}{a^2 b^{\frac{1}{2}}} \right)$?

Where $a > 1$ and $b > 1$

A. $\dfrac{b^3 \sqrt{b}}{a^4 \sqrt{a^3}}$

B. $\dfrac{b^3 \sqrt{b}}{a^3 \sqrt{a}}$

C. $\dfrac{b^3 \sqrt{b}}{\sqrt[r]{a^2}}$

D. $\left(\dfrac{\sqrt{b^3}}{\sqrt[4]{a^2}} \right.$.

Answer: A

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9. If $\dfrac{1}{2}(z - 4)(z + 4) = m$, then,in term of z, what is the value of $z^2 - 16$?

A. $\sqrt{m}$

B. $\dfrac{m}{2}$

C. m

D. $2m$

Answer: D

▶ View Text Solution

10. If $(y + 5)^2 = 49$, then which one of the following could be the value of $(y + 3)^2$?

A. 1

B. 64

C. 81

D. 225

Answer: C

> ▶ View Text Solution

11. If

$$a - b = 4, b - 6 = c, c - 2 = d, \text{ and } a + d = 4$$

,what is the value of a?

A. 4

B. 8

C. 16

D. It cannot be determined from the information given.

Answer: B

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Problem Set 10 Lines Angles And Coordinates

1.
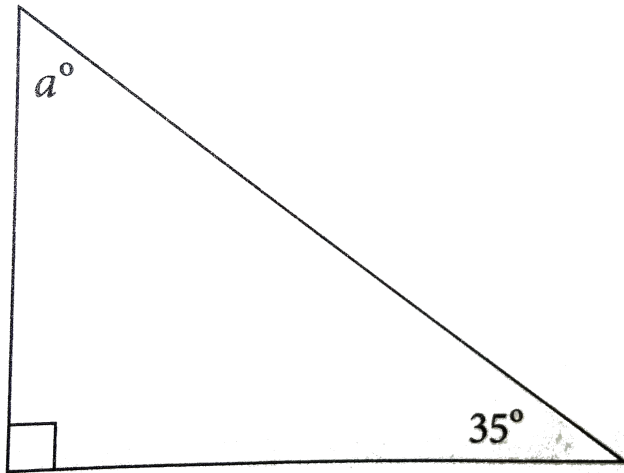
In the figure, what is the value of 2a?

A. $55°$

B. $90°$

C. $110°$

D. $165°$

Answer: C

2.
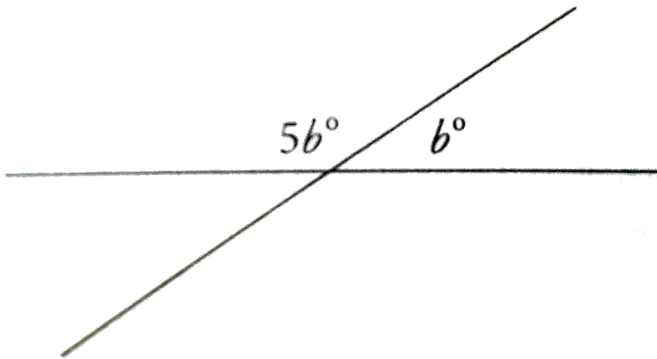
In the figure above, what is the value of b?

A. $20°$

B. $30°$

C. 40°

D. 45°

Answer: B

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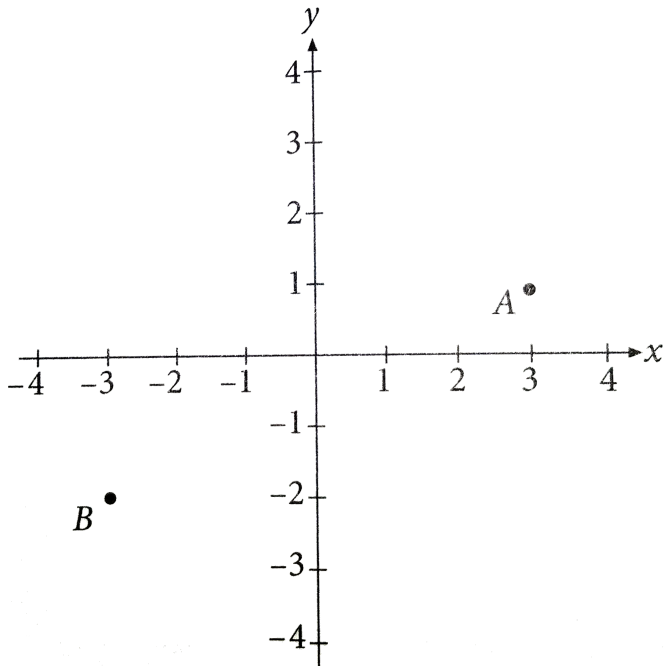
3.

In the xy-plane above, what is the value of the x-coordinates of Point A minus the y-coordinates of Point B?

A. -2

B. -1

C. 3

D. 5

Answer: D

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4.
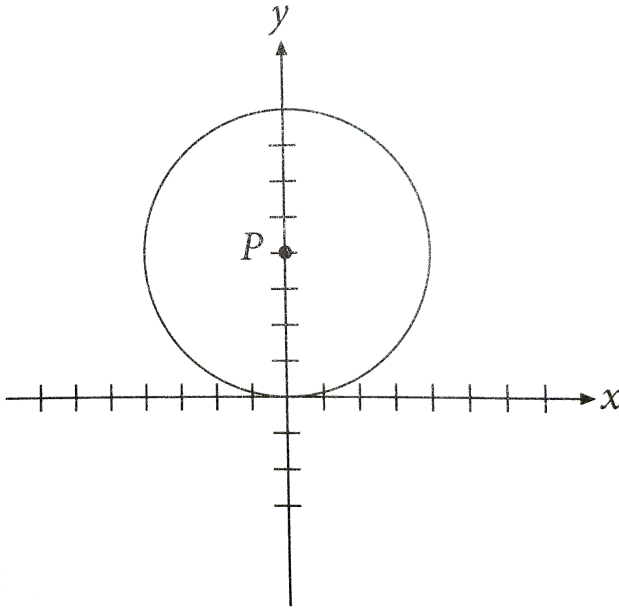
Point P is the certer of the circle shown above, which has a radius of 4. Which of the following points lies on circle P?

A. $(4, 0)$

B. $(0, 4)$

C. $(-4, 4)$

D. $(4, 3)$

Answer: C

▶ Watch Video Solution
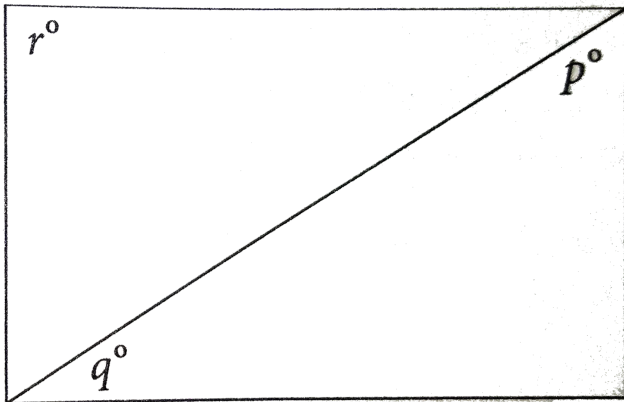
5.

In the rectangle above, what is the value of

p+q+r?

A. 0°

B. 15°

C. 35°

D. 50°

Answer: A

6.
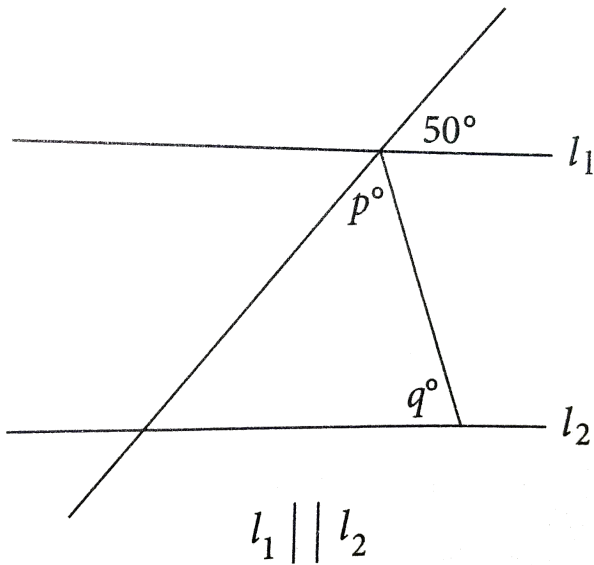
In the figure above what is the value of p+q?

A. $150°$

B. $130°$

C. $90°$

D. $70°$

Answer: B
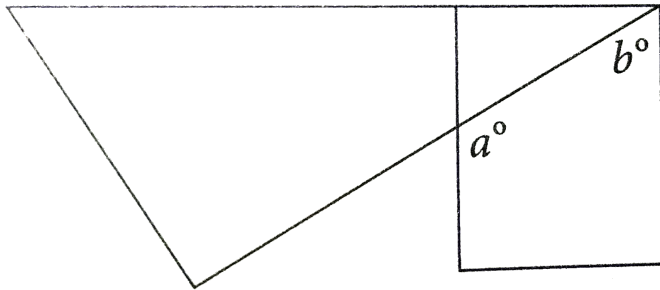
7.

The figure above is formed by a triangle overlapping a rectangle. What is the value of a+b?

A. $90°$

B. $150°$

C. $180°$

D. $270°$

Answer: C

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8. The equation $(x + 4)^2 + (y - 7)^2 = 25$ represents a circle in the xy-plane . Points A and B on the circle are the endpoints of

diameter, and point A has coordinates (-4, 2).

What are the coordinates of point B?

A. $(- 9, 7)$

B. $(- 4, 12)$

C. $(- 4, 7)$

D. $(1, 7)$

Answer: C

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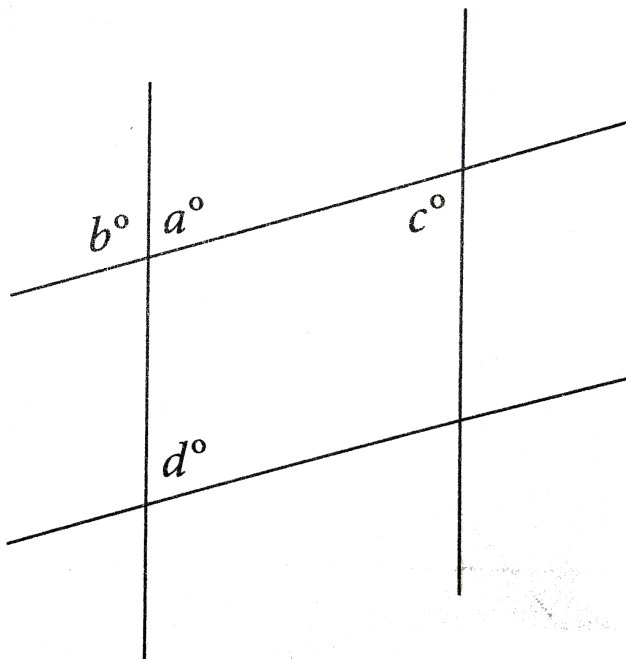
9.

Which of the following statements must be true?

I. $a + b < 180$

II. $a + d = 180$

III. $a + d > 180$

A. None

B. II only

C. I and II only

D. II and III only

Answer: A

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10.
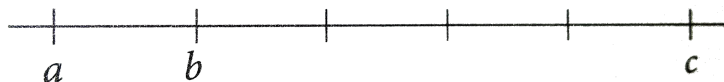
The tick marks on the number line above are

equally spaced. If 2 is halfway between b and c, and the value of c-a is 10, what is the value b?

A. -4

B. -2

C. 0

D. 6

Answer: B

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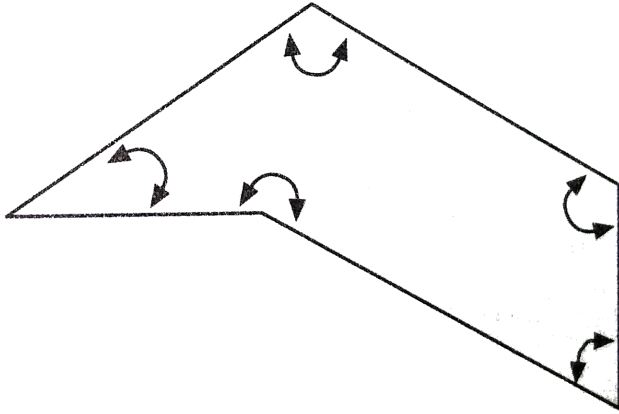
11.

What is the total number of degrees of the marked angles?

  A. 180

  B. 360

  C. 540

  D. 720

Answer: C

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Problem Set 11 Triangles
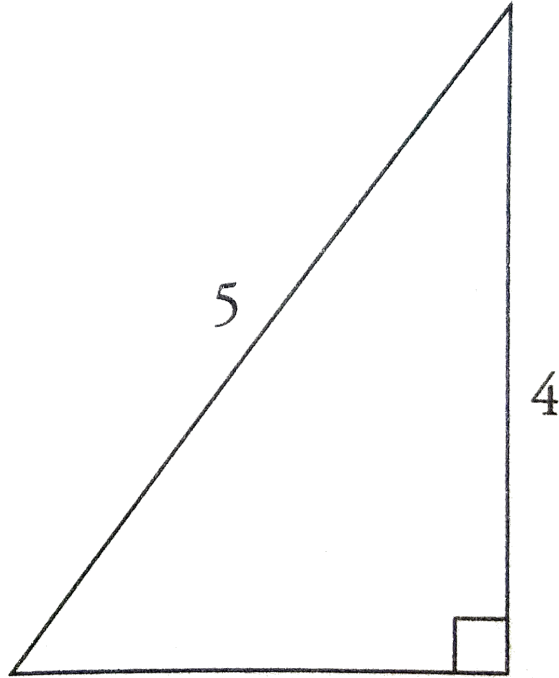
1.

If the area of the triangle above is 6, what is its

perimeter?

A. 11

B. 12

C. 15

D. 16

Answer: B

▶ **Watch Video Solution**
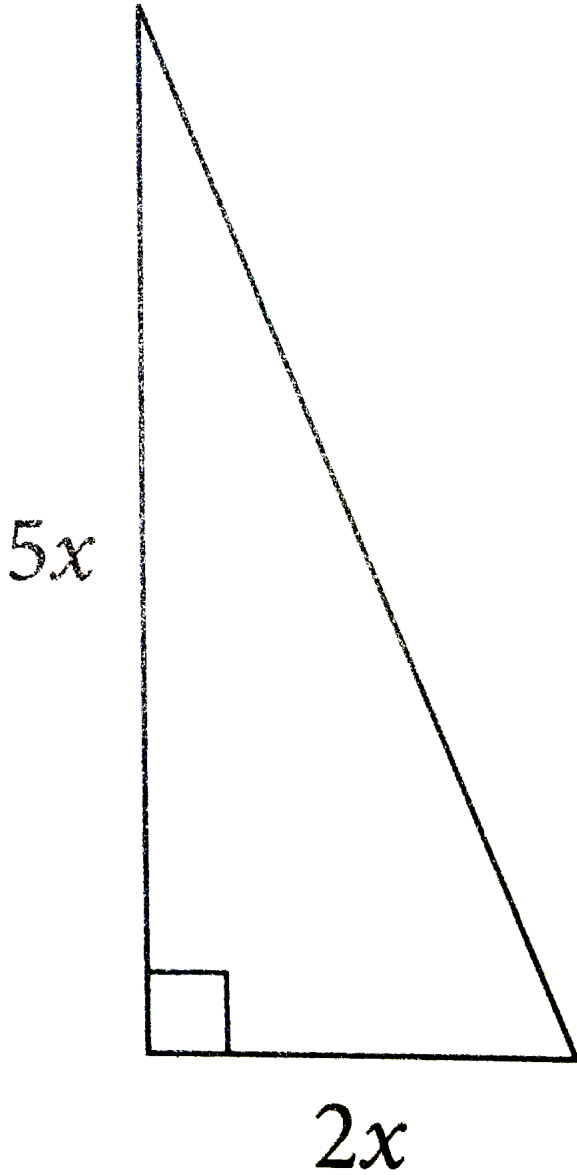
2.

If x=3, what is the area of the triangle above?

A. 10

B. 21

C. 30

D. 45

Answer: D

▶ **Watch Video Solution**

B

12

A

C

3.
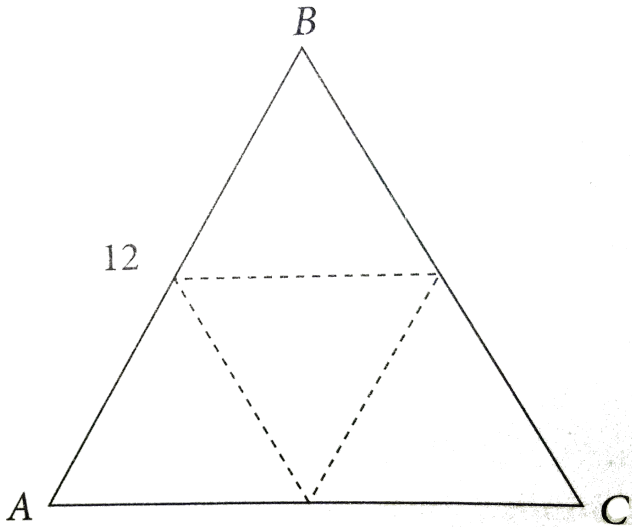
If equilibrium triangle ABC is cut by three lines

, as shows , to form four equilibrium triangles

of equal area , what is the length of a side of

one of the smaller triangles?

A. 3

B. 4

C. 5

D. 6

Answer: D

4.
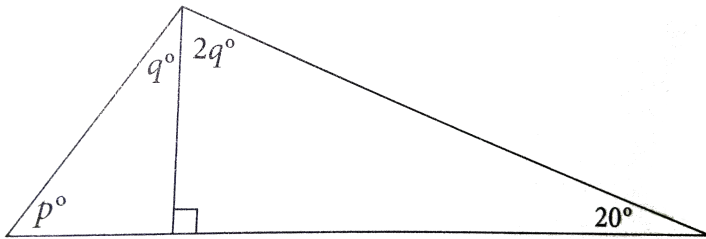
What is the value of p in the figure above?

A. 50

B. 55

C. 60

D. 70

Answer: B

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5. A movie theater is 3 blocks due north of a supermarket, and a beauty parlor is 4 blocks due east of the movie theate. How many

blockes long is the steet that runs directly from the supermarket to the beauty parlor?

A. 2.5

B. 3

C. 5

D. 7

Answer: C

6.
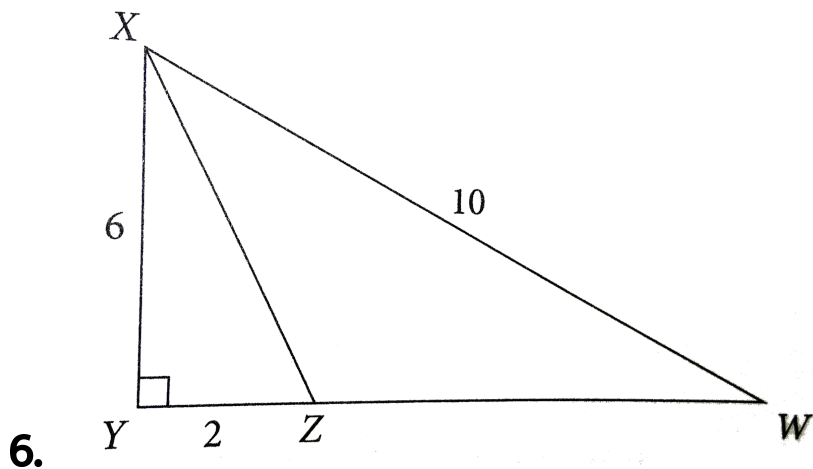
What is the area of triangle WXZ in the figure above?

A. 6

B. 12

C. 18

D. 24

Answer: C
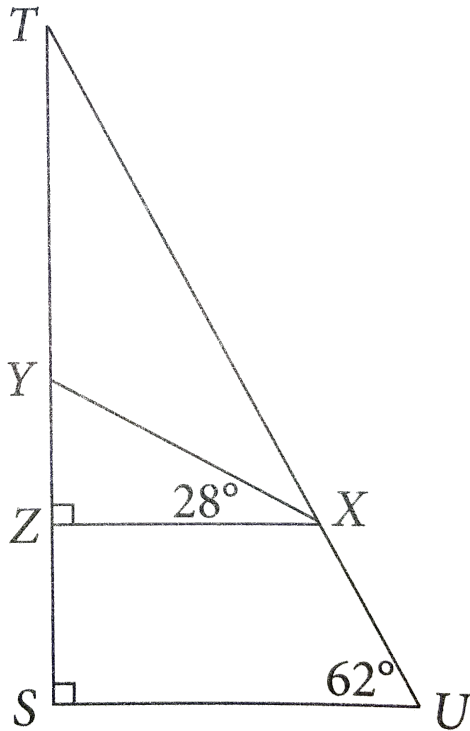
7.

Triangles STU and XYZ are shown above. Which

of the following is equal to ratio of $\dfrac{ST}{SU}$

A. $\dfrac{YZ}{XY}$

B. $\dfrac{YZ}{XZ}$

C. $\dfrac{XZ}{XY}$

D. $\dfrac{XZ}{YZ}$

Answer: B

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8.
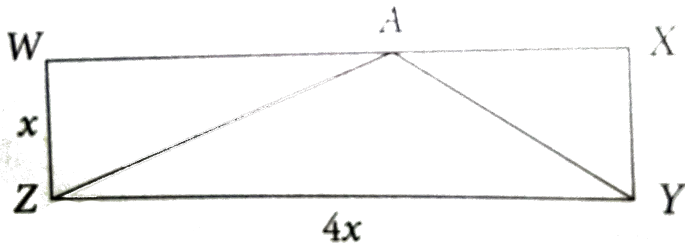
In the figure above, what is the area of triangle YAZ?

A. $3x$

B. $5x$

C. $2x^2$

D. $4x^2$

Answer: C

9. A square is inscribed in a circle with area 9z.

What is the area of the square?

A. $3\sqrt{2}$

B. $9\sqrt{2}$

C. 18

D. 36

Answer: C

10.
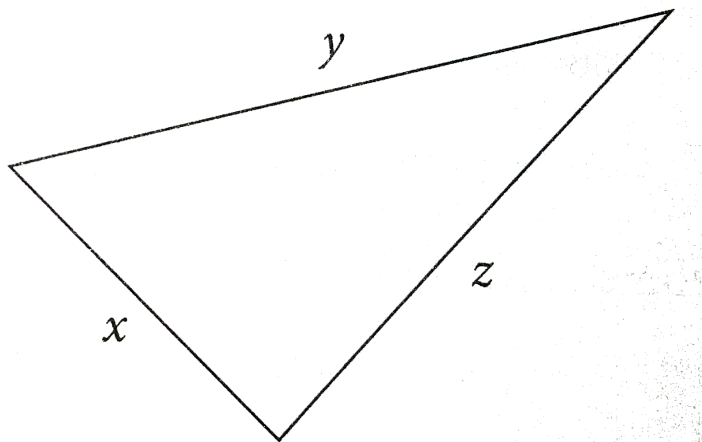
In the figure above, if x=7 and y=11, what is the difference between the greatest and least possible integers value of z?

A. 11

B. 12

C. 13

D. 14

Answer: B

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11. An equilateral triangle with a perimeter of 12 is inscribed in a circle. What is the area of circle?

A. $\dfrac{16\pi}{9}$

B. $\dfrac{4\pi\sqrt{3}}{3}$

C. 3π

D. $\dfrac{16\pi}{3}$

Answer: D

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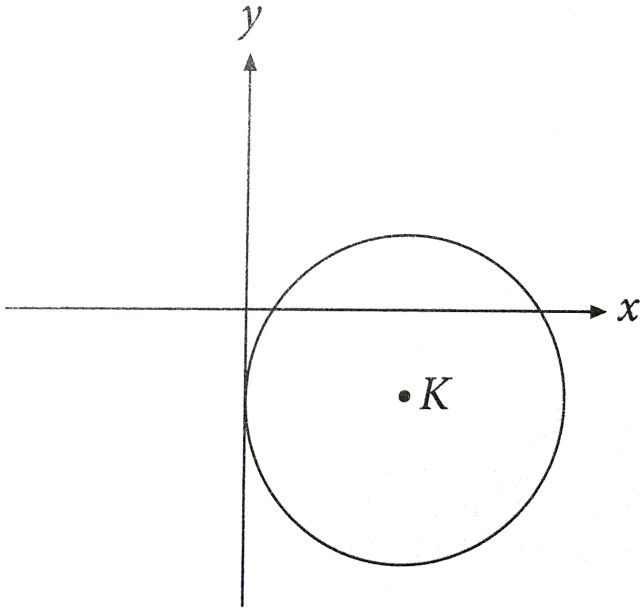
1.

Point K is the center of the circle above, and

the coordinates of Point K are (2, -1). What is

the area of the circle?

A. π

B. 2π

C. 4π

D. 8π

Answer: C

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2. Circle P has a radius of 7, and Circle R has a diameter of 8. The circumference of Circle P is how much greater than the circumference of Circle R?

A. π

B. 6π

C. 16π

D. 33π

Answer: B

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6 cm
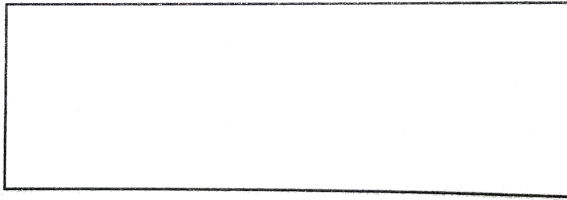
2 cm

3.

How many squares with sides of 1 cm could fir

into the rectangle above?

A. 3

B. 4

C. 6

D. 12

Answer: D
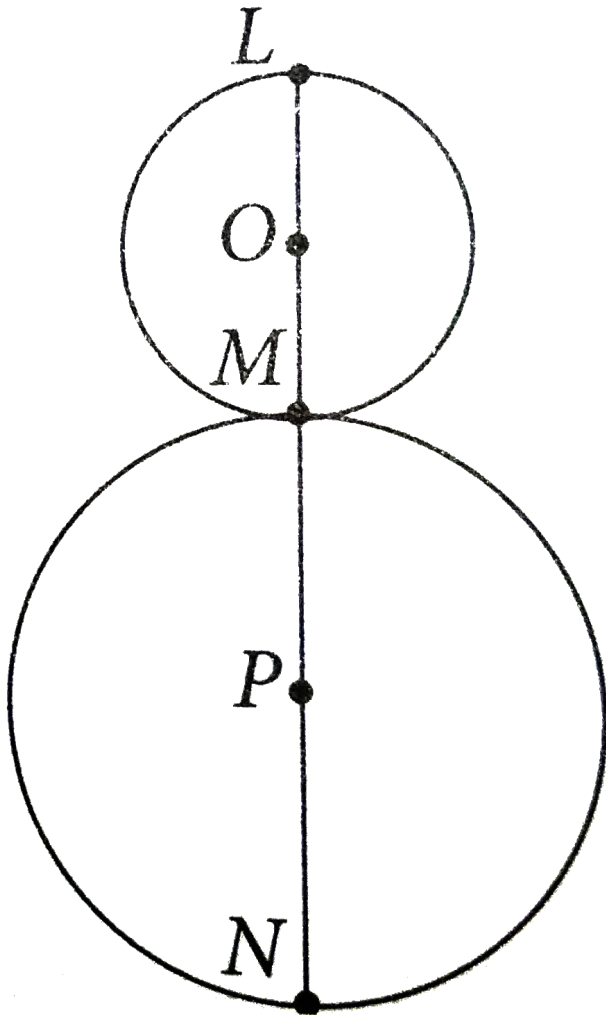
4.

In the figure above, LM is $\dfrac{1}{3}$ of LN. If the radius

of the circle with center P is 6, what is the area

of the area of the circle with center O?

A. 4π

B. 9π

C. 12π

D. 18π

Answer: B

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5.
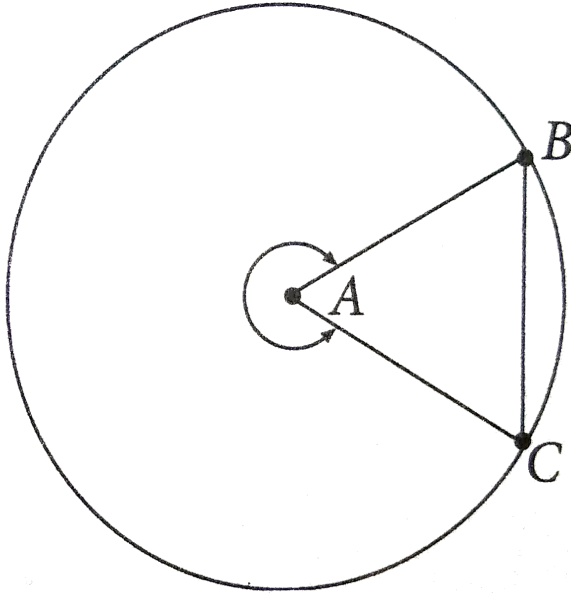
In the figure above, the circle has center A, and BC=AB. What is the degree measure of the marked angle?

A. $60°$

B. $270°$

C. $300°$

D. $340°$

Answer: C

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6 inches

6.
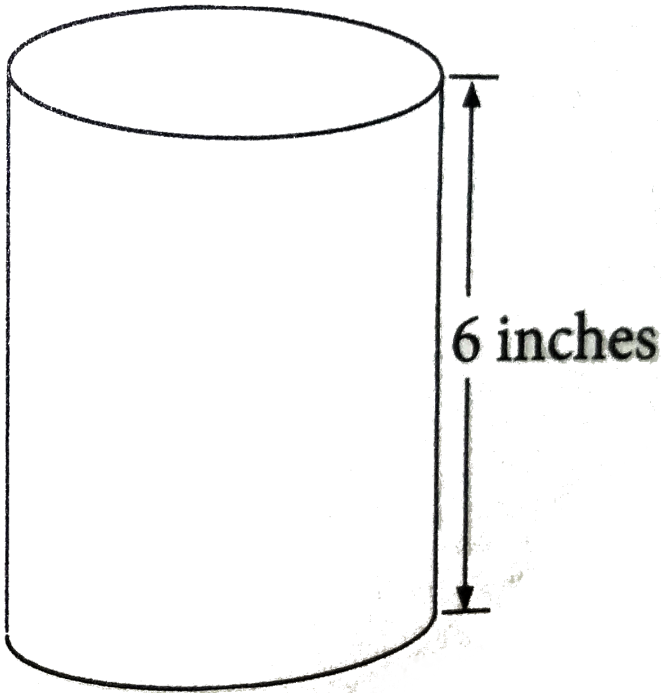
In the figure above, the radius of the base of the cylinder is half its height. What is the approximate volume of the cylinder in cubic inches?

A. 28

B. 57

C. 117

D. 170

Answer: D

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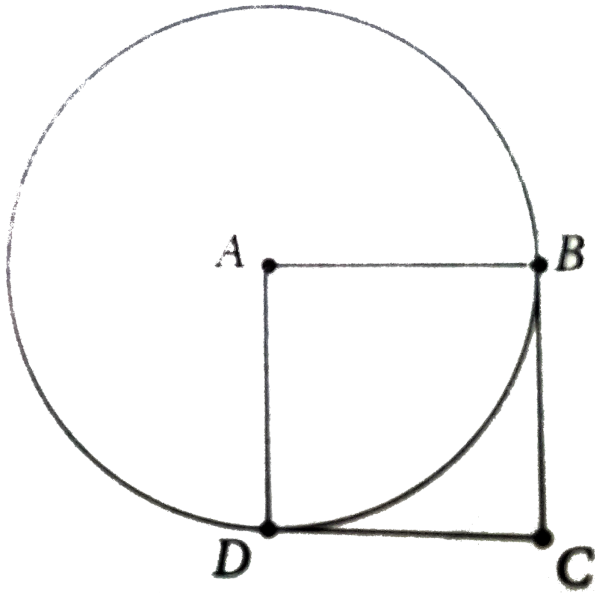
7.

Points D and B lie on the circle above with center A. If square ABCD has an area of 16, what is the length of arc BD?

A. 4

B. 2π

C. 8

D. 4π

Answer: B

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8. A crate in the shape of a right rectangular prism can hold 8 feet by 4 feet by 3 feet worth of material. At a particular hardware store, the price of brick is $1.20 per cubic foot. How much would it cost to completely fill the crate with

bricks, such that there is no space remaining in the crate?

A. 38.4

B. 115.2

C. 384

D. 1152

Answer: B

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9.
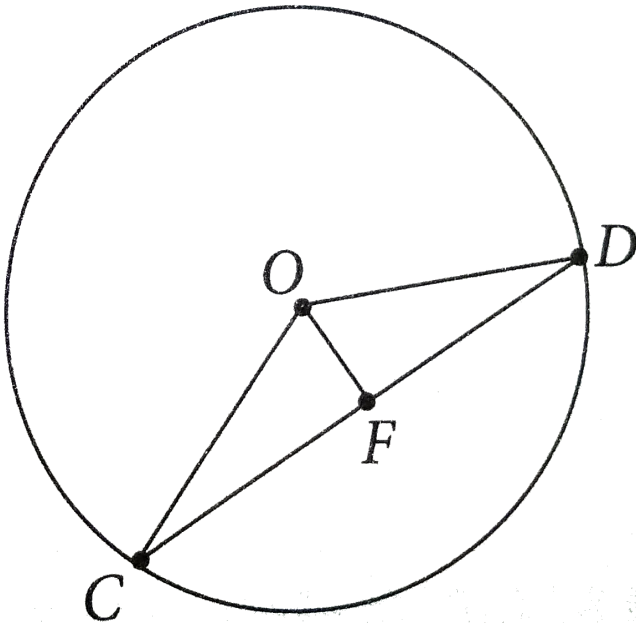
In the figure above, what is the circumference of the circle with center O. If COD is $120°$ and OF bisects CD and has a length of 1.5?

A. $\dfrac{2\pi}{3}$

B. $\dfrac{3\pi}{2}$

C. 6π

D. 9π

Answer: C

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10.
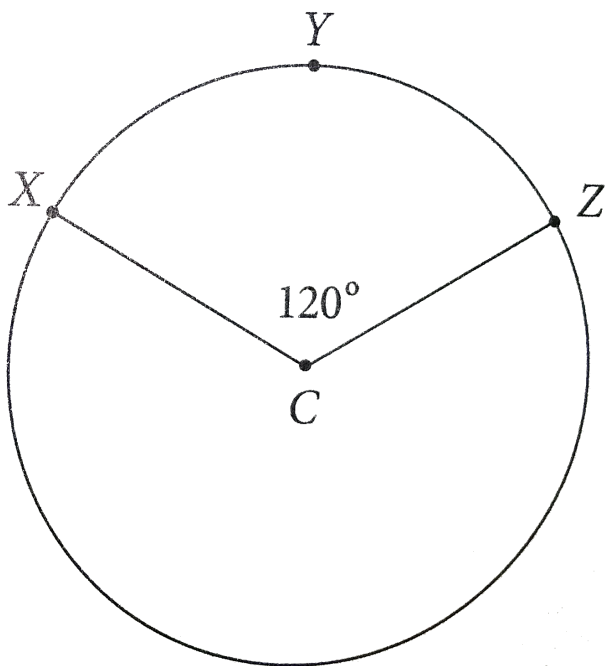
In the figure above, C is the center of a circle. If the length of the arc XYZ is 4π, what is the radius of the circle?

A. 4

B. $2\sqrt{3}$

C. 6

D. 12

Answer: C

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11. Jeremy will fill a rectangular crate that has inside dimensions of 18 inches by 15 inches by 9 inches with cubical tiles, each with edge lengths of 3 inches. If the tiles are packaged in

sets of 8, how many packages will jeremy

needs to completely fill the crate?

A. 11

B. 12

C. 90

D. 101

Answer: B

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Problem Set 13 Advanced Geometry

1. The density of an object is equal to the mass of the object divided by the volume of the object. What is the volume, in squares feet, of an object with a mass of 2,000 pounds and a density of 500 pounds per square foot?

A. 1, 000, 000

B. 1, 500

C. 4

D. 0.25

Answer: C

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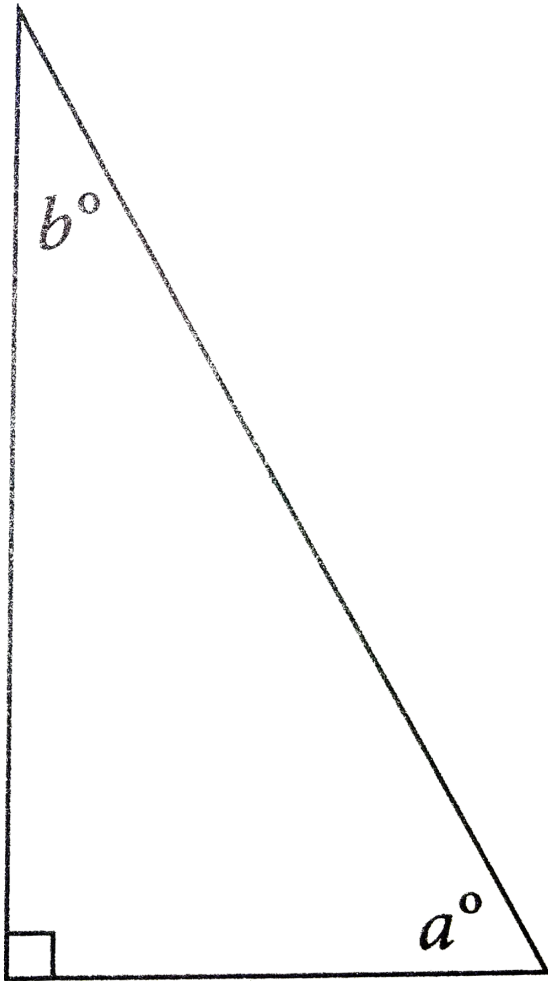
2.

In the triangle above, if $\cos a = \dfrac{5}{13}$, what is $\sin b$?

A. $\dfrac{5}{13}$

B. $\dfrac{5}{12}$

C. $\dfrac{12}{13}$

D. $\dfrac{12}{5}$

Answer: A

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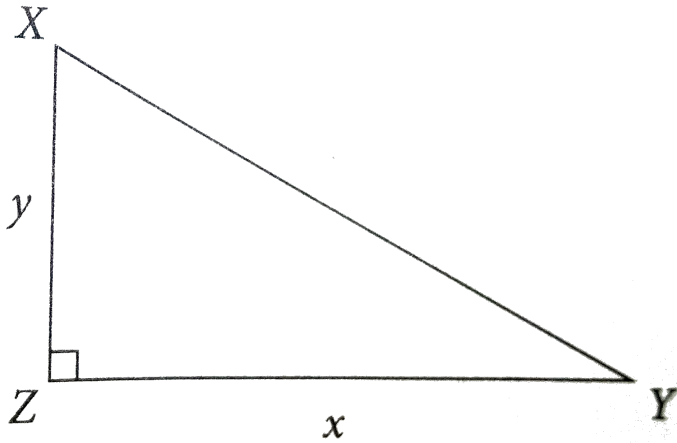
3.

Given the right triangle above, which of the following is equivalent to $\dfrac{y}{x}$?

A. tan X

B. tan Y

C. cos X

D. cos Y

Answer: B

4. In a circle with center O, the measure of central angle POQ is $\dfrac{3\pi}{2}$ radians. The length of the arc formed by central angle POQ is that fraction of the circumference of the circle?

A. $\dfrac{3}{16}$

B. $\dfrac{3}{8}$

C. $\dfrac{3}{4}$

D. $\dfrac{3}{2}$

Answer: C

5. In a right triangle, on angle measure $y°$, where $\cos y = \dfrac{3}{5}$. What is the $\sin(90° - y°)$?

A. $\dfrac{3}{5}$

B. $\dfrac{3}{4}$

C. $\dfrac{4}{5}$

D. $\dfrac{4}{3}$

Answer: A

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6. In a right triangle, $\sin x^\circ = \cos y^\circ$. If $x = 3c + 14$ and $y = 7c + 11$, what is the value of c?

A. 3.5

B. 6.5

C. 11.5

D. 22.5

Answer: B

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7. In triangle PQR. $\angle Q$ is a right angle, QR=24, and PR=26. Triangle YXZ is similar to triangle PQR, where vertices X, Y, and Z correspond to vertices P, Q, and R, respectively, and each side of triangle XYZ is $\dfrac{1}{2}$ the length of the

corresponding side of triangle PQR. What is the value of sin Z?

A. $\dfrac{5}{13}$

B. $\dfrac{5}{12}$

C. $\dfrac{12}{13}$

D. $\dfrac{12}{5}$

Answer: A

$$V = \frac{13\pi c^3}{108}$$

8.

The maximum volume of the Erlenmeyer flask pictured above is 3.49 cubic inches, which is approximately 5.7 liters. What is the value of c, in inches?

A. 6.17

B. 6.82

C. 9.74

D. 11.21

Answer: C

 Watch Video Solution
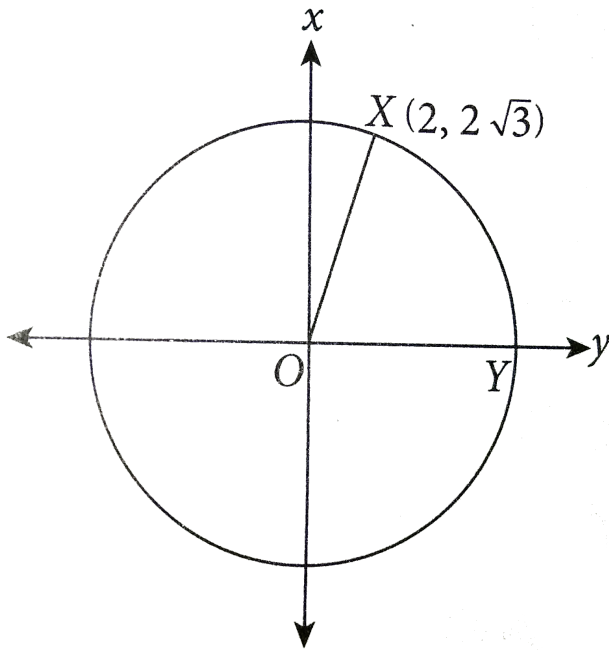
9.

In the xy-plane above, the circle has center O, and the measure of $\angle XOY$ is $\dfrac{\pi}{n}$ radians. What is the value of n?

A. 1

B. 3

C. 6

D. 12

Answer: B

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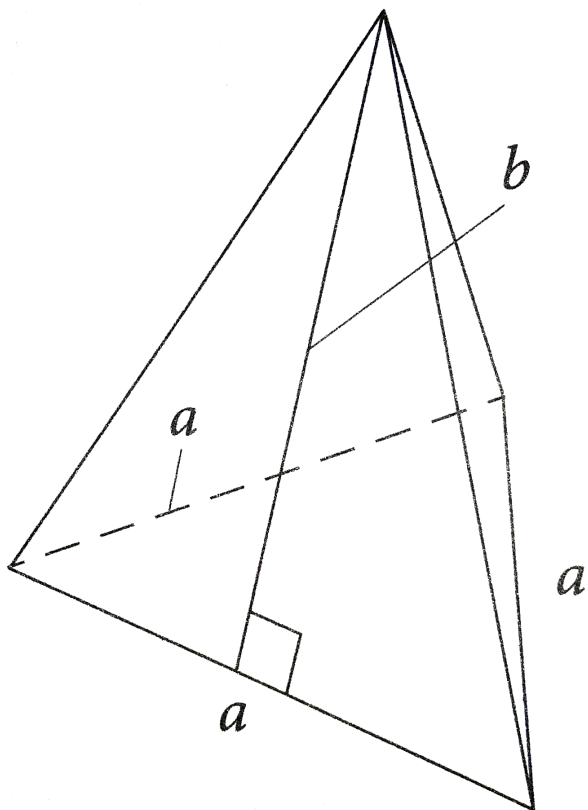
10.

The formula above can be used to find the surface area of the right pyramid with equilateral triangular base shown, where a is the length of each side of the triangle base

and b is the slant height of the lateral face.

What must the expression 1.5ab represent?

A. The area of the base

B. The area of a lateral face

C. The area of the base and one lateral face

D. The sum of the areas of the lateral faces

Answer: D

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6 ft

10 ft

20 ft

10 ft

10 ft

10 ft

6 ft
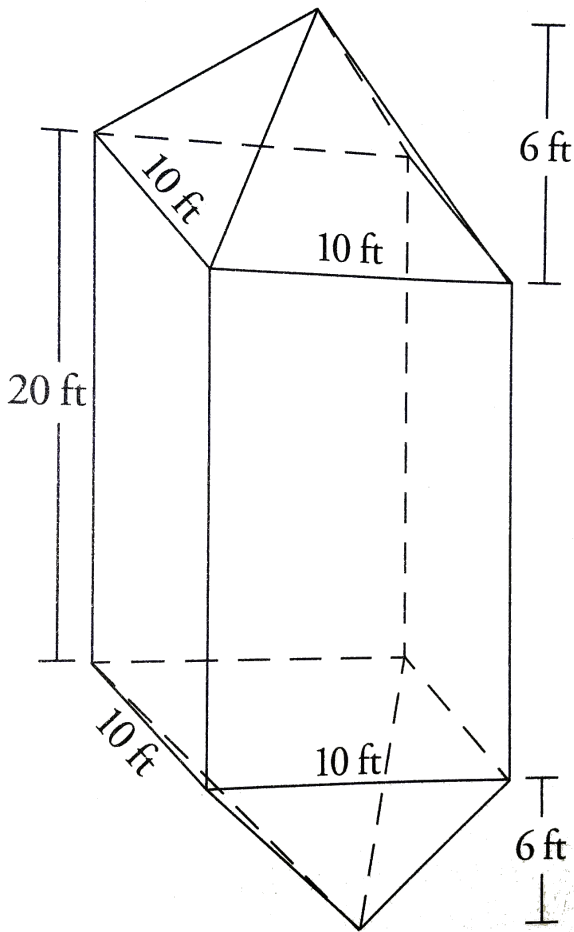
11.

An art installation is built from a rectangular

solid and two pyramids with dimensions as

indicated by the figure above. Which is the volume of the art installation in square feet?

A. 2, 400

B. 2, 000

C. 400

D. 200

Answer: A

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Problem Set 14 Functions

1. If the function f has three distinct zeros, which of the following represents the graph of f in the xy-plane?

A)

A.

B)

B.

C)

C.

D)

D.
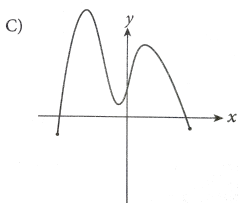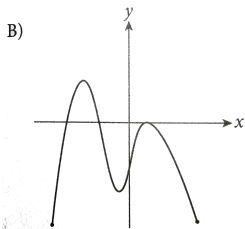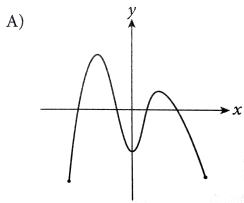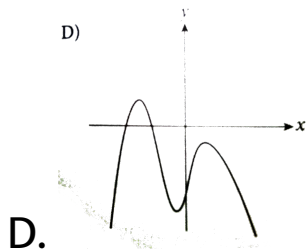
Answer: B

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2. In the xy-plane, the graph of the functions g has zeros at -4, 2, and 4. Which of the following could define g?

A. $g(x) = (x - 4)(x - 2)(x + 4)$

B. $g(x) = (x - 4)^2(x - 2)$

C. $g(x) = (x - 4)(x + 2)(x + 4)$

D. $g(x) = (x + 2)(x + 4)^2$

Answer: A

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3. If $f(x) = 2x + 1$ and $f(a) = 2$, what is the value of a?

A. $\dfrac{1}{2}$

B. $\dfrac{1}{2}$

C. 2

D. 5

Answer: B

▶ View Text Solution

4. If $f(x) = 4x + 2$, which of the following is the graph of f(x)?

A.

B.
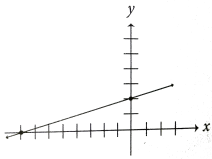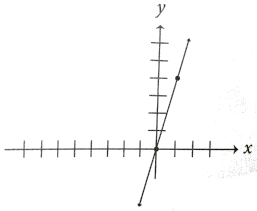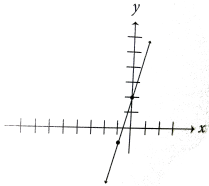
C.
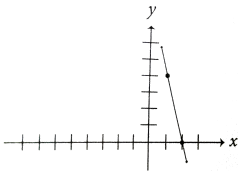
D.

Answer: C

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y

$(0, 3)$

$(-1, -2)$

x
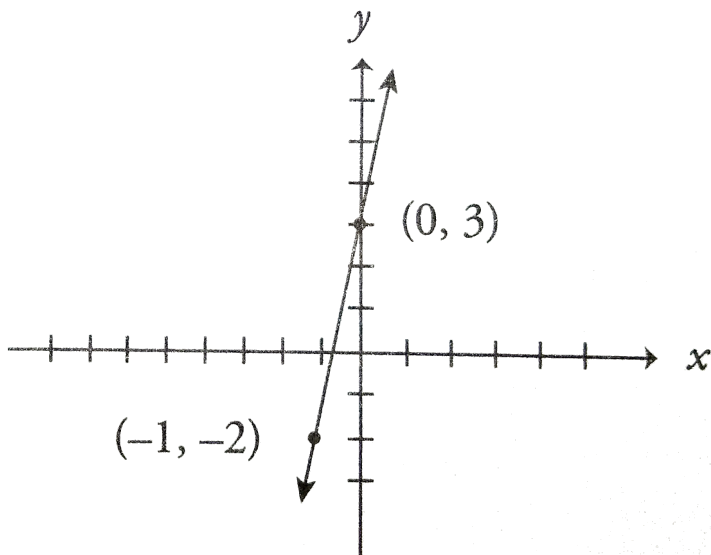
5.

If the graph above is that of f(x), which of the

following could be f(x)?

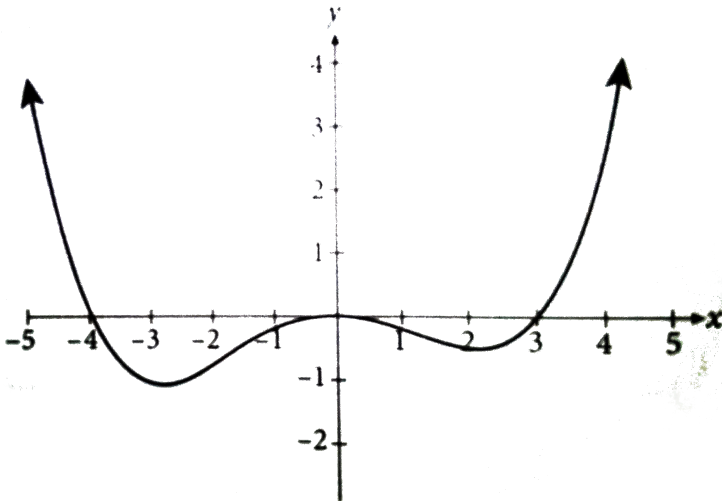A. $f(x) = \dfrac{1}{5}x + \dfrac{1}{5}$

B. $f(x) = \dfrac{1}{5}x + 3$

C. $f(x) = 3x + 5$

D. $f(x) = 5x + 3$

Answer: D

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6.

Which of the following could be the equation

of the graph in the xy-plane shown above?

A. $f(x) = x(x+3)(x-4)$

B. $f(x) = x(x+4)(x-3)$

C. $f(x) = x^2(x+3)(x-4)$

D. $f(x) = x^2(x+4)(x-3)$

Answer: D

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7. If $f(x) = 2x^2 + 8x + 2$, for what values of x

does f(x)=0?

A. $x = -8 \pm 4\sqrt{3}$

B. $x = -8 \pm \sqrt{3}$

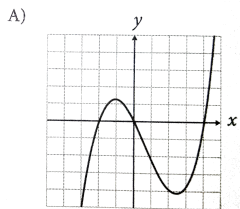C. $x = -2 \pm \sqrt{3}$
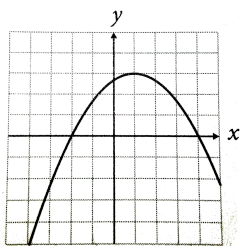
D. $x = -8 \pm \dfrac{\sqrt{40}}{2}$

Answer: C

> ▶ **Watch Video Solution**

8. The zeros of the polynomial function g are 4 and -2. If the range of g is the set real numbers greater than or equal to -3, which of the
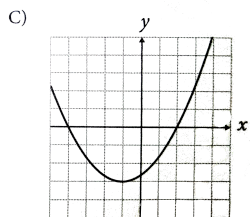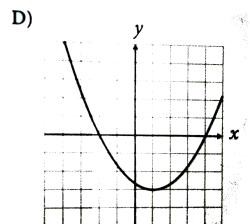
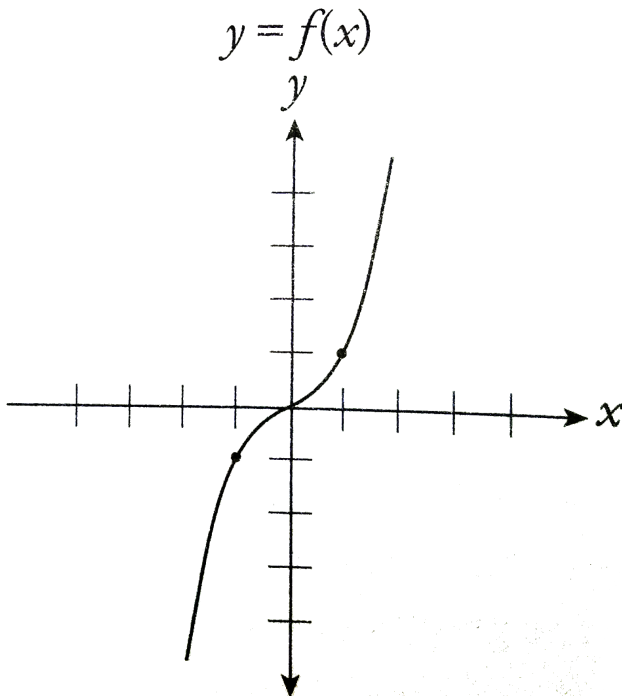following could be the graph of y=g(x) in the

xy-plane?

A)

A.

B.
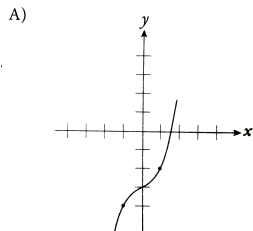
C)

C.

D)

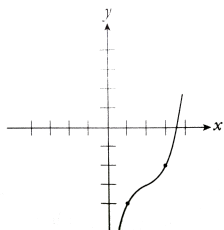D.

Answer: D

$$y = f(x)$$

9.

If the graph above shows the function

$f(x) = x^3$, which one of the following graphs

shows $f(x) = (x + 2)^2 - 3$?

A)

A.

B.

C)

C.

D)

D.

Answer: D

$f(x) = x^2 - 4x - 21$

10.
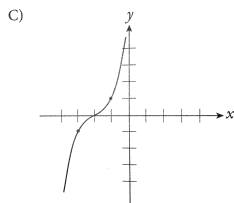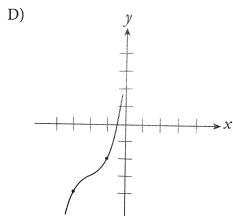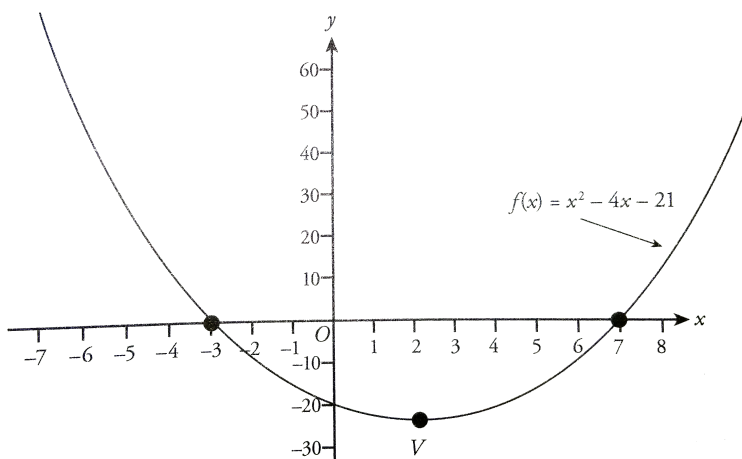
Which of the following is an equivalent form of

the equation of the function graphed above

from which the coordinates of the vertex V can

be identified as constants in the equation?

A. $f(x) = (x - 3)(x + 7)$

B. $f(x) = (x + 3)(x - 7)$

C. $f(x) = (x - 2)^2 - 25$

D. $f(x) = x(x - 4) - 21$

Answer: C

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11. $p(x) = 3x^3 + 15x^2 + 18x$

$q(x) = x^2 + 5x + 6$

The polynomials p(x) and q(x) are defined

above. Which of the following polynomials is divisible by 3x-2?

A. $f(x) = p(x) - 2q(x)$

B. $g(x) = 2p(x) - 3q(x)$

C. $h(x) = 3p(x) - 2q(x)$

D. $j(x) = 4p(x) - 3q(x)$

Answer: A

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Problem Set 15 Grid Ins

1. If $x - y = -6$, then y is how much greater than x?

2.
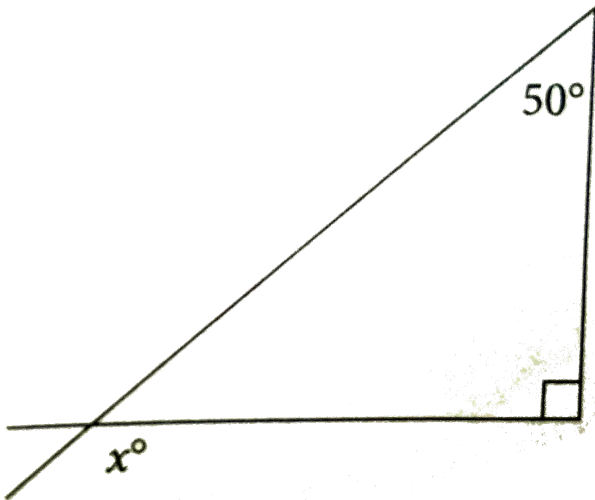
In the figure above, what is the value of x?

3. A certain solution requires $3\frac{1}{2}$ grams of additive for each 7 liters of water. At this rate, how many grams of additive should be used with 11 liters of water?

4. If $\left(\dfrac{x+2}{y+2}\right) = \dfrac{3}{4}$, then what is the value of $\left(\dfrac{2+y}{2+x}\right)^2$?

5. The speed, in miles per hour, of a particular experimental spacecraft t minutes after it is lauched is modeled by the function M, which is defined as $M(t) = 200(3)^{\frac{t}{3}}$. According to this model, what is the speed, in miles per hour, 9 minutes after the spacecraft is lauched?

Climate Preferences

Dry/Cold 8%

Humid 6%

Dry/Warm 34%

Other 4%

Topical 48%
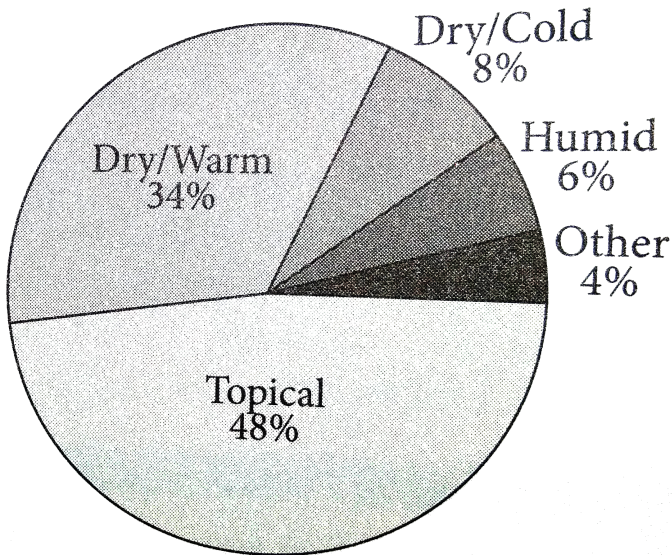
6.

The graph above shows the result of a survery in which adults were asked to name first prefecnce among various types of climates. Of the adults surveryed a total of 280 answered "Humid" or "other". How many answered "Other" in the survey?

7. Charles Lindbergh began his flight from New York to Paris on May 20, 1927. In the course of his flight across the Atlantic Ocean Lindbergh travelled approximately 5,800 kilometers in 2,010 minutes. What was the average speed of the airplane during his flight, to the nearest kilometers per hour?

8. $-4, 0, 2, 3$

A sequence of numbers is formed by repeating the set of numbers until 80 numbers have been listed. What is the sum of the first 31 terms of the sequence?
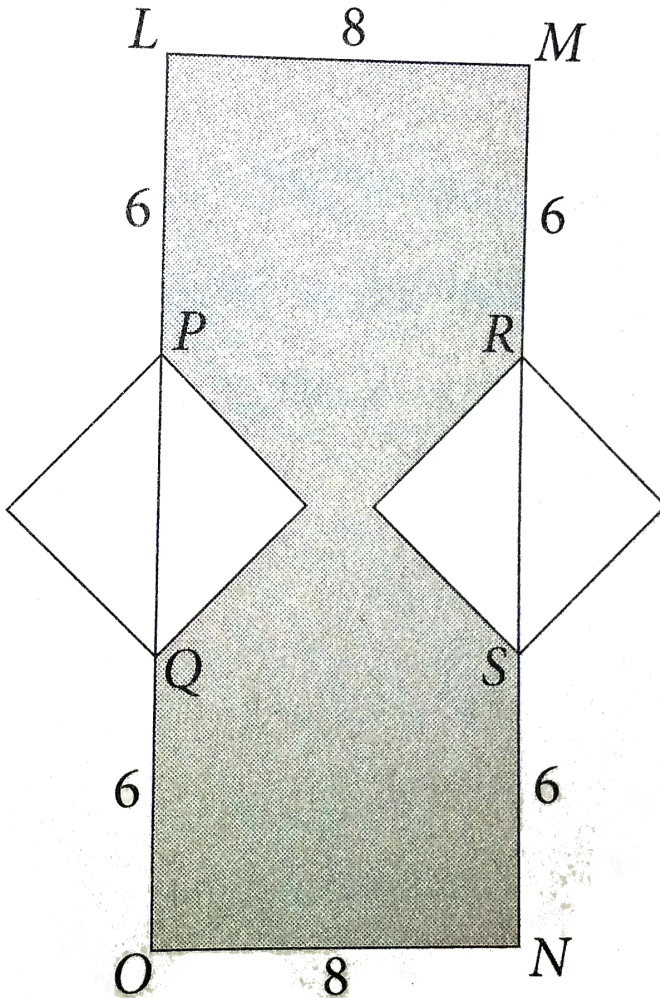
9.

In the figure below, rectangular LMNO has

dimensions of 18 by 9. Segments PQ and RS are

diagonals of the square shown. What is the area of the shaded region?

10. A scientist studies Bacteria Culture A, which grows then percent every hour. Bacteria Culture A initially contained 200 microbes, and she models the growth using the equation $n = 200(m)^h$, where n is the number of microbes and h is the number of hours.

Q. What is the value of m in the equation ?

11. A scientist studies Bacteria Culture A, which grows then percent every hour. Bacteria Culture A initially contained 200 microbes, and she models the growth using the equation $n = 200(m)^h$, where n is the number of microbes and h is the number of hours.

Q. The same scientist also studies another culture, Bacteria Culture B, which grows 15% every hour. The two cultures began at the same time with the same number of microbes.

After 20 hours, how many more microbes will becteria Culture B contain than Bacteria Culture A ? (Round your answer to the nearest whole number).

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Problem Set 16 More Grid Ins

1. If $2x - 3y = 7$ and $y = 3$, then what is the value of x?

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2.
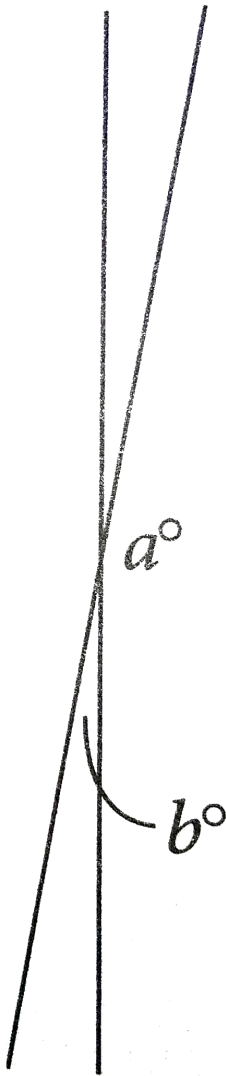
In the figure above, If a=170, what is the value

of b?

3. At a certain beach, the cost of renting a beach umbrella is $4.5 per day or $28.00 per week. If Kelly and Brandon rent a beach umbrella for 2 weeks instead of renting one each day for 14 days, how much money, in dollars, will they save per week? (Leave off the dollar sign when gridding in your answer).

4. The average (arithmetic mean) of 8 numbers is 65. If one of the numbers, 65, removed, what is the average of the remaining 7 numbers?

5. The face of a walll measures 30 yards by 24 yards. If the wall is to be completely covered with square bricks measuring 3 yards on each side, how many bricks will be needed to cover the wall?

6. In a recent marathon, 70 percent of those who entered the race reached the finish line. If 720 did not reach the finish line, how many people entered the race?

7. $4a - b = -2.25, a + b4.25$

If (a, b) satisfies the system of equations

above, what is the valeu of a?

Note: Figure not drawn to scale.

8.
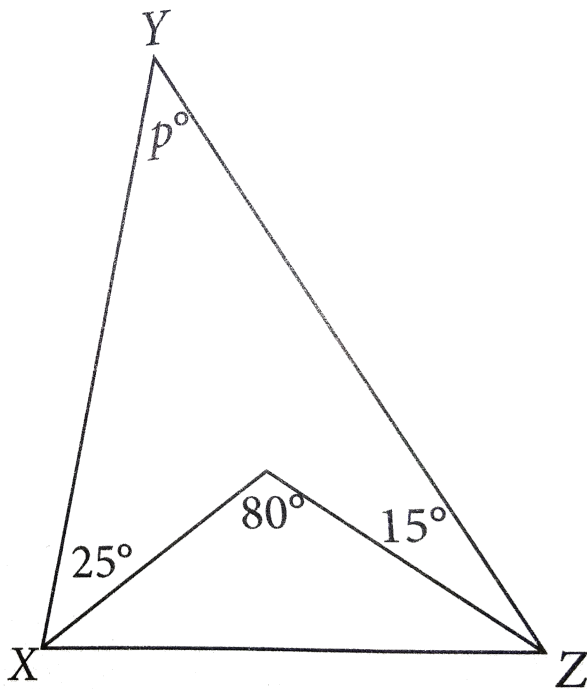
In triangle XYZ above, what is the value of p?

9.
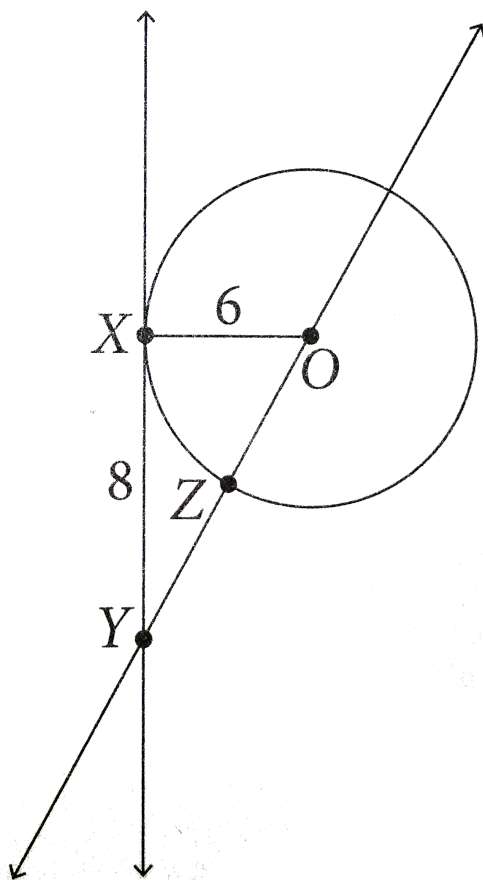
In the figure above, O is the center of the circle, the length of segment XY is 8, and the

line passing through point X and Y is tangent to the circle at point X. What is the length of segment ZY?

10. Let the functions g be defined as $g(x) = -3x + 6$. If $g(6) = r$, what is the value of g(r)?

11. When a number is subtracted from 8 less than three times the number, the result is 142. What is the number?

Problem Set 17 Mixed Bag

1. If $x = 14 - y$, what is 3x when y=11?

A. -9

B. -3

C. 3

D. 9

Answer: D

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2. At Rose's Flower Shop, the cost of purchasing a bundle of 8 ferms is $57. The cost of each fern, when purchased separately is $9. How much money would be saved by

purchasing a bundle of 8 ferns, rather than purchasing 8 ferns separately?

A. 12

B. 13

C. 14

D. 15

Answer: D

3. In isosceles triangleABC, one angle measure $55°$ and another angle measure $70°$. Which one of the following is the measure of the third angle?

A. 40

B. 55

C. 70

D. It cannot be determined from the information given.

Answer: B

4. If $24b^2 - 4x = 32$, what is the value of $6b^2 - x$?

A. 6

B. 8

C. 12

D. 16

Answer: B

5. Sasha has a collection of 60 vinyl records, some of the which are classic jazz and the rest which are hip hop. If Sasha has $\frac{1}{4}$ as many classic jazz records as she has hip hop records, how many classic jazz records does she have?

A. 12

B. 15

C. 45

D. 48

Answer: A

6. If p is an integer such that $-5 < p < 5$ and $q = 3p - p^3$, what is the least possible value of q?

A. -76

B. -52

C. -4

D. 0

Answer: B

7. Rennae needs to purchase at least 20 boards for group art project. The poster boards come in the small size, which costs $30 per board, and the larger size., which costs $50 per board. Her allowance for purchasing poster boards is no more than $860 in total. She must purchase at least 5 small poster boards and 4 larger poster boards.If a

represents the number small poster boards

and b represents the number of large poster

boards, which of the following system of

inequalities represents the restrictions

described?

A.

$$30a + 50b \leq 860, \; a + b \leq 20, \; a \leq 5, \; b \leq 4$$

B.

$$30a + 50b \geq 860, \; a + b \geq 20, \; a \leq 5, \; b \leq 4$$

C.

$$30a + 50b \leq 860, \; a + b \geq 20, \; a \geq 5, \; b \geq 4$$

D.

$$30a + 50b \geq 860, a + b \leq 20, a \geq 5, b \geq 4$$

Answer: C

8. In terms of x, what is the difference between

6x+9 and 2x-4. If $x > 2$?

A. $3x + 5$

B. $4x - 5$

C. $4x + 5$

D. $4x + 13$

Answer: D

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9. In triangles ABC, the measures of angles a, b, and c, respectively, are in the ratio 2:3:4.What is the measure of angle b?

A. 20

B. 40

C. 60

D. 80

Answer: C

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y = h(x)

y = k(x)
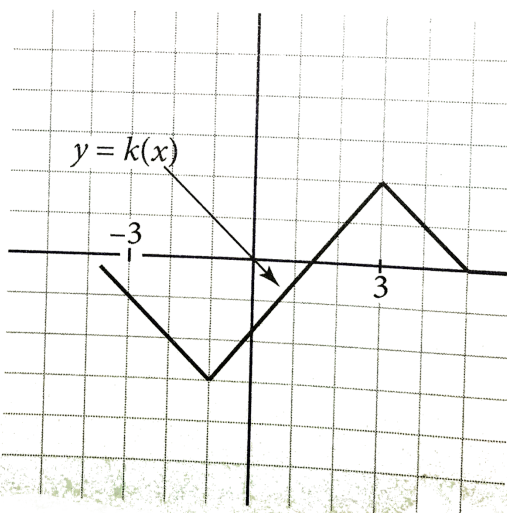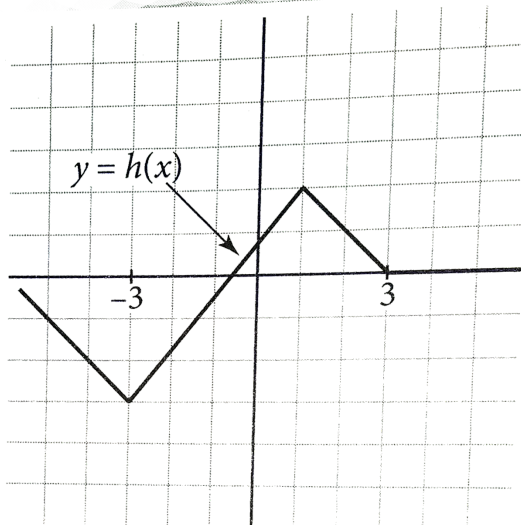
10.

The graphs above show the complete

functions h and k. which one of the following

expresses k(x) in terms of h(x)?

A. $k(x) = h(x) + 2$

B. $k(x) = h(x) - 2$

C. k(x)=h(x+2)`

D. $k(x) = h(x - 2)$

Answer: D

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11. If $h^{\frac{2}{3}} = k^2$, then in terms of k, what is the value of h^2?

    A. $k^{\frac{2}{3}}$

    B. $k^{\frac{4}{9}}$

    C. k^3

    D. k^6

Answer: D

1. For $i = \sqrt{-1}$, what is the sum of $(5 + 2i) + (-7 + 30i)$?

   A. $-2 - i$

   B. $-2 + 5i$

   C. $12 - i$

   D. $12 + 5i$

Answer: B

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2. If n and s are integers, and $n + 5 < 7$ and $s - 6 < -4$, which of the following could be a value of n+s?

A. 2

B. 5

C. 4

D. 6

Answer: A

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3. A home designer will carpet n rooms with the same dimensions in a house using a specific type of carpeting. The designer charges using the expressions nClw, where n is the number of rooms, C is a constant with units of dollars per square meter. L is the length of the each room in meters, and w is the width of each room in meter. If a customer asks the designer to use a less expansive type oof carpating, which of the following factors in the expressions would change?

A. n

B. C

C. l

D. w

Answer: B

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4. Which of the following lines is perpendicular to $y = 2x + 7$?

A. $y = 3x + \dfrac{1}{7}$

B. $y = 3x - \dfrac{1}{7}$

C. $y = \dfrac{-1}{2}x + 3$

D. $y = \dfrac{1}{2}x + 3$

Answer: C

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5. Which oof the following complex numbers is equivalent to $\dfrac{7 - 3i}{2 + 4i}$?

A. $\dfrac{1}{10} - \dfrac{17}{10}i$

B. $\dfrac{1}{10} + \dfrac{17}{10}i$

C. $\dfrac{7}{2} - \dfrac{3}{4}i$

D. $\dfrac{7}{2} + \dfrac{3}{4}i$

Answer: A

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6. The total cost, y for Rosa to go on vacation for x days given by the equation y=A+(H+M)x`, where A represents the airface, H represents

the cost per day for the hotel, and M represents the cost the metal. If the relationship between the total cost of the vacation and the number of the days of the vacation is graphed on the xy-plane, what does the slope of the line represents?

A. The total cost daily cost of the hotel and meals

B. The total daily cost of the vacation

C. The total cost of the hotel and meals

D. The total cost of the vacation

Answer: A

7. A bank account pays interest at an annual rate of 4%. If the initial deposit on the account is $1,250 and no other deposits or withdrawals are made to the account, which of the following functions A models the account of money in the bank account after y years?

A. $A(y) = 0.04(1,250)^y$

B. $A(y) = 1.04(1,250)^y$

C. $A(y) = 1,250(0.04)^y$

D. $A(y) = 1,250(1.04)^y$

Answer: D

8. An artist commissioned by a particular city displays an ice scultpture weighing 260 pounds. Once put on display, the scutpture melts at a constant rate for 20 days, at which

point the sculpture will have completely melted. How much does the sculpture weigh, in pounds, 5 days after it is first displayed?

A. 247

B. 195

C. 130

D. 65

Answer: B

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9. $x^2 + y^2 - 6x + 8y = -9$

The equation of the circle in xy-plane is shown above. What is the radius of the circle?

A. 3

B. 4

C. 9

D. 16

Answer: B

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10. In certain company, 55% of the employees are male, 64% of the female employees and 58% of the male employees receive year end raises.

Q. What percent of the employees at the company receive year end raises

(Ignore the percent symbol when entering your answer. For answer, if the asnwer is 42.1% enter 42.1).

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11. In certain company, 55% of the employees are male, 64% of the female employees and 58% of the male employees receive year end raises.

Q. What percent of the employees who receive raises are female.

(Ignore the percent symbol when entering your answer. For answer, if the asnwer is 42.1% enter 42.1).

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