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## MATHS

# BOOKS - PRINCETON MATHS <br> <br> (ENGLISH) 

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## FUN WITH FUNDAMENTALS

## Drill 1

1. Solve each of the following problems by performig the indicated operations in the
proper order.
Q. $107+(109-107)=$

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2. Solve each of the following problems by performig the indicated operations in the proper order.
Q. $(7 \times 5)+3=$

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3. Solve each of the following problems by performig the indicated operations in the proper order.
Q. $6-3(6-3)=$

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4. Solve each of the following problems by performig the indicated operations in the proper order.
Q. $2 \times[7-(6 \div 3)]=$
5. Solve each of the following problems by performig the indicated operations in the proper order.
Q. $10-(9-8-6)=$

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## Drill 2

1. Rewriite problem by either distributings or
factoring and then solve. Question 3, 4, and 5
have no numbers in them, therefore, they can't be solved with a calculator.
Q. $(6 \times 57)+(6 \times 13)=$

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2. Rewriite problem by either distributings or factoring and then solve. Question 3, 4, and 5 have no numbers in them, therefore, they can't
be solved with a calculator.

$$
\mathrm{Q} .51(48)+51(50)+51(52)=
$$

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3. Rewriite problem by either distributings or factoring and then solve. Question 3, 4, and 5
have no numbers in them, therefore, they can't be solved with a calculator.
Q. $a(b+c-d)=$

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4. Rewriite problem by either distributings or factoring and then solve. Question 3, 4, and 5 have no numbers in them, therefore, they can't be solved with a calculator.
Q. $x y-x z=$

## - Watch Video Solution

5. Rewriite problem by either distributings or factoring and then solve. Question 3, 4, and 5 have no numbers in them, therefore, they can't
be solved with a calculator.
Q. $a b c-x y z=$

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## Drill 3

1. Try converting the following mixed numbers
to fractions.
Q. $8 \frac{1}{3}$

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2. Try converting the following mixed numbers to fractions.
Q. $2 \frac{3}{7}$

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3. Try converting the following mixed numbers
to fractions.
Q. $5 \frac{4}{9}$
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4. Try converting the following mixed numbers to fractions.
Q. $2 \frac{1}{2}$

## - Watch Video Solution

5. Try converting the following mixed numbers to fractions.
Q. $6 \frac{2}{3}$

## - Watch Video Solution

1. Work these problems with the techniques
you've read about in this chapter so far. Then
check your answer by solving them with your calculator. If you have any problem go back and review the information just outlined.
Q. Reduce $\frac{18}{6}$.

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2. Work these problems with the techniques
you've read about in this chapter so far. Then
check your answer by solving them with your calculator. If you have any problem go back and review the information just outlined.
Q. Convert $6 \frac{1}{5}$ to fraction.

## D Watch Video Solution

3. Work these problems with the techniques
you've read about in this chapter so far. Then
check your answer by solving them with your calculator. If you have any problem go back and review the information just outlined.
Q. $2 \frac{1}{3}-3 \frac{3}{5}=$

## D Watch Video Solution

4. Work these problems with the techniques
you've read about in this chapter so far. Then
check your answer by solving them with your
calculator. If you have any problem go back
and review the information just outlined.
Q. $\frac{3}{4} \div \frac{6}{25}=$

## D Watch Video Solution

5. Work these problems with the techniques
you've read about in this chapter so far. Then
check your answer by solving them with your calculator. If you have any problem go back and review the information just outlined.
Q. $\frac{5}{18} \times \frac{6}{25}=$

## D Watch Video Solution

6. Work these problems with the techniques you've read about in this chapter so far. Then check your answer by solving them with your calculator. If you have any problem go back and review the information just outlined.
Q. $\frac{\frac{2}{5}}{5}=$

## - Watch Video Solution

7. Work these problems with the techniques
you've read about in this chapter so far. Then
check your answer by solving them with your calculator. If you have any problem go back and review the information just outlined.
Q. $\frac{\frac{1}{3}}{\frac{3}{4}}=$
(D) Watch Video Solution

## Drill 5

1. Calculate each of the answers to following questions on paper with your pencil, rounding any awkward numbers to make the math easier to handle. Then check your answers with your calculator.
Q. $0.43 \times 0.87=$ _

## D Watch Video Solution

2. Calculate each of the answers to following questions on paper with your pencil, rounding
any awkward numbers to make the math easier to handle. Then check your answers with your calculator.
Q. $\frac{43+0.731}{0.03}=$

## D Watch Video Solution

3. Calculate each of the answers to following questions on paper with your pencil, rounding any awkward numbers to make the math easier to handle. Then check your answers
with your calculator.
Q. $3.72 \div 0.02=$

## - Watch Video Solution

4. Calculate each of the answers to following questions on paper with your pencil, rounding any awkward numbers to make the math easier to handle. Then check your answers with your calculator.
Q. 0.71-3.6=

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## Example

1. For the equation $\frac{a^{x}}{a^{y}}=a^{10}$ and $\left(a^{y}\right)^{3}=a^{x}$ , if $a>1$, what is the value of x ?
A. 5
B. 10
C. 15
D. 20

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2. If $x>0$, which of the following is equivalent
to $\sqrt{x^{3}}$ ?
I. $x+x^{\frac{1}{2}}$
II. $\left(x^{\frac{1}{2}}\right)^{3}$
III. $\left(x^{2}\right)\left(x^{\frac{1}{2}}\right)$
A. None
B. I and II only
C. II and III only

## D. I, II, and III

## Answer: C

## D Watch Video Solution

3. A certain store sells televisions ranging in price for $\$ 500$ to $\$ 5,000$ in increment of $\$ 500$.

The graph above shows the total number of television sold at each price durind the last 12 months. Approximately how much more revenue did the store collect from the
television it sold price at $\$ 3,500$ then it did from the television it sold price at $\$ 1,000$ ?

A. \$175It000

B. 250000
C. 275000
D. 350000

Answer: C

## D Watch Video Solution

4. The forecasted monthly sales of always sunny sunscreen are presented in the figure above. For which period are the forecasted monthly sales figures strictly decreasing and then strictly increasing?

Monthly Sales of Always Sunny Sunscreen

A. January to March
B. February to April

## C. June to August

D. September to November

Answer: B

## D View Text Solution

5. The population of five countries are in the graph above. If population density is defined as (population)/(area), and the area of paraguay is $400,000 \mathrm{sq} \mathrm{km}$, what is the
population density of paraguay, In the people per sq km?
A. 0.08
B. 0.8
C. 1.25
D. 12.5

Answer: D
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6. Computer production at a factory occurs during two shifts, as shown in the chart above.

If computers are produced only during the morning and afternoon shifts, on which of the
following pairs of days is the greatest total number computers produced?
A. Monday and Thursday
B. Tuesday and Thursday
C. Wednesday and Friday
D. Tuesday and Friday

## Answer: C

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## Fundamental Drill 1 No Calculator Section

1. Which of the following represents the statement " the sum of the squares of $x$ and $y$
iis equal to the sqaure root of the difference $x$ and "?

$$
\text { A. } x^{2}+y^{2}=\sqrt{x-y}
$$

$$
\begin{aligned}
& \text { B. } x^{2}-y^{2}=\sqrt{x+y} \\
& \text { C. }(x+y)^{2}=\sqrt{x}-\sqrt{y} \\
& \text { D. } \sqrt{x+y}=\sqrt{x-y}^{2}
\end{aligned}
$$

Answer: A

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2. If $a=-2$, then $a+a^{2}-a^{3}+a^{4}-a^{5}=$
A. -22
B. -18
C. 32
D. 58

## Answer: D

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3. If $9^{-2}=\left(\frac{1}{3}\right)^{x}$, what is the value of x ?
A. 1
B. 2
C. 4
D. 6

## Answer: C

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4. $\frac{1}{8}+\frac{1}{10}=\frac{a}{b}$

In the equation above, if $a$ and $b$ are positive integers and $\frac{a}{b}$ is in its simplest reduced form, what is the vlaue of $a$ ?
A. 2
B. 9
C. 18
D. 40

Answer: B

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## Fundamental Drill 2 Calculator Permitted Section

1. If 7 times a number is 84 , what 4 times the number?
A. 16
B. 28
C. 48
D. 56

Answer: C

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> 2. If $3 x=12$, what is the value of $\frac{24}{x}$ ?
> A. $\frac{1}{6}$
B. $\frac{2}{3}$
C. 4
D. 6

## Answer: D

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3. Which of the following graphs shows a stong positive association between x and y ?
A.
B.
c.
D.

Answer: D

## - Watch Video Solution

4. If $\sqrt{x}+22=18$, what is the value of x ?
A. 4
B. 16
C. 32
D. 256

Answer: B

## ( Watch Video Solution

5. If each number in the following sum were
increased by t , the new would be 4.22. What is
the value of $t$ ?
A. 0.24
B. 0.29
C. 0.33
D. 0.37

## Answer: D

## - Watch Video Solution

6. If $4^{x} \cdot n^{2}=4^{x+1} \cdot n$ and $x$ and $n$ are both
positive integers, what is the value of $n$ ?
A. 2
B. 4
C. 6
D. 8

Answer: B

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