



# MATHS

**BOOKS - INDEPENDENTLY PUBLISHED**

**MATHS (ENGLISH)**

**PLANE GEOMETRY/ TRIGONOMETRY**

## Exercise

1. Which of the following is not property of a parallelogram ?

A. Opposite sides are congruent.

B. Consecutive angles are supplementary.

C. Diagonals are congruent.

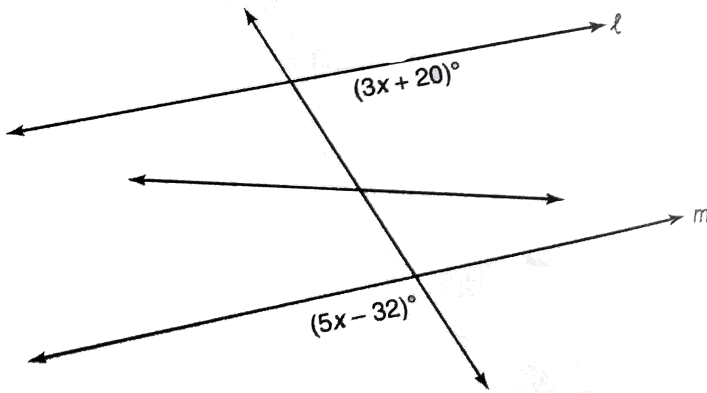
D. Opposite sides are parallel.

**Answer: C**



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2. Find the  $x$  value for which  $l$  is parallel to  $m$ .



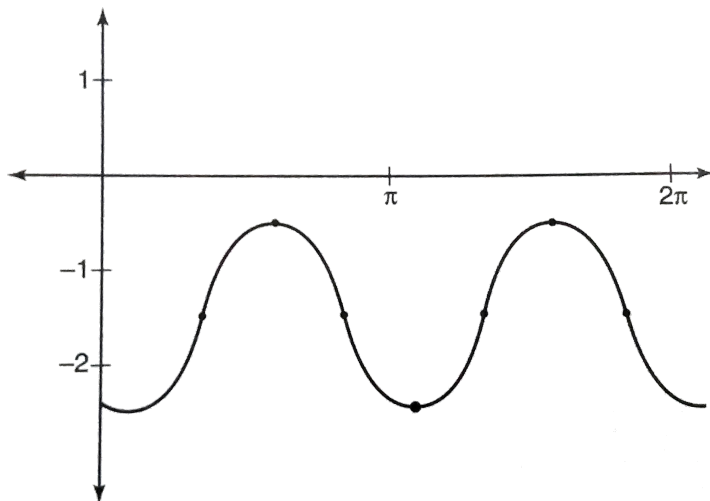
- A. 6
- B. 16
- C. 20
- D. 24

**Answer: D**



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3. Which is the equation of the trigonometric function graphed here ?



A.  $y = \sin 2x - \frac{\pi}{3}$

B.  $y = \sin 2\left(x + \frac{\pi}{2}\right)$

C.  $y = \sin 2\left(x - \frac{\pi}{3}\right)$

D.  $y = \sin 2\left(x - \frac{\pi}{3}\right) - \frac{3}{2}$

**Answer: D**



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4. Which of the following are the dimensions of a right triangle ?

A. 0.6, 0.8, 0.12

B. 2, 3, 4

C. 9, 12, 15

D. 9, 13, 21

**Answer: C**



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5. Find the volume of a cone with a slant height of 15 inches and a base with a 16- inch diameter.

A.  $271\pi$

B.  $320\pi$

C.  $960\pi$

D.  $1280\pi$

**Answer: A**



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**6.** Find the coordinates of point A  $(-7, 3)$  when it is reflected about the line  $y = x$ .

A.  $(-7, -3)$

B.  $(-3, 7)$

C.  $(3, -7)$

D.  $(3, 7)$

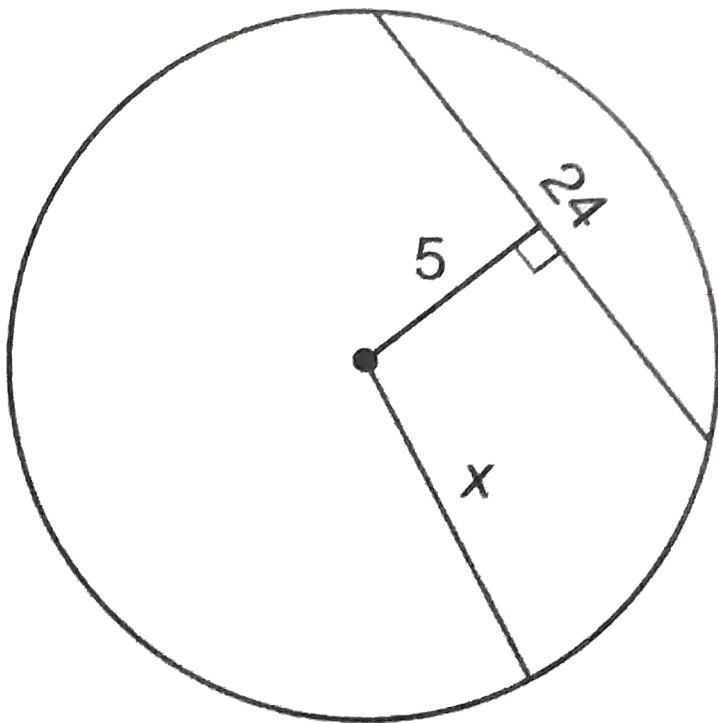
**Answer: C**



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7. Find  $x$ .



A. 7

B. 11

C. 12

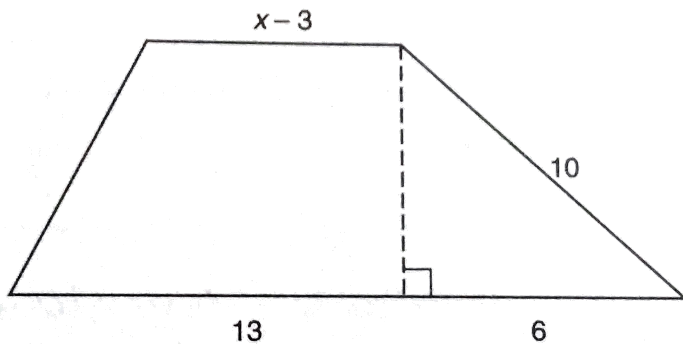
D. 13

**Answer: D**



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**8.** Solve for  $x$ , given that the area is 120.



A. 7

B. 11

C. 12

D. 14

**Answer: D**



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9. When constructing wheelchair ramps, the ramp must not rise more than 1 inch for every foot of ramp. What is the maximum angle the

ramp can make with the ground for a 3 foot  
ramp ?

A.  $4.8^\circ$

B.  $14.34^\circ$

C.  $14.47^\circ$

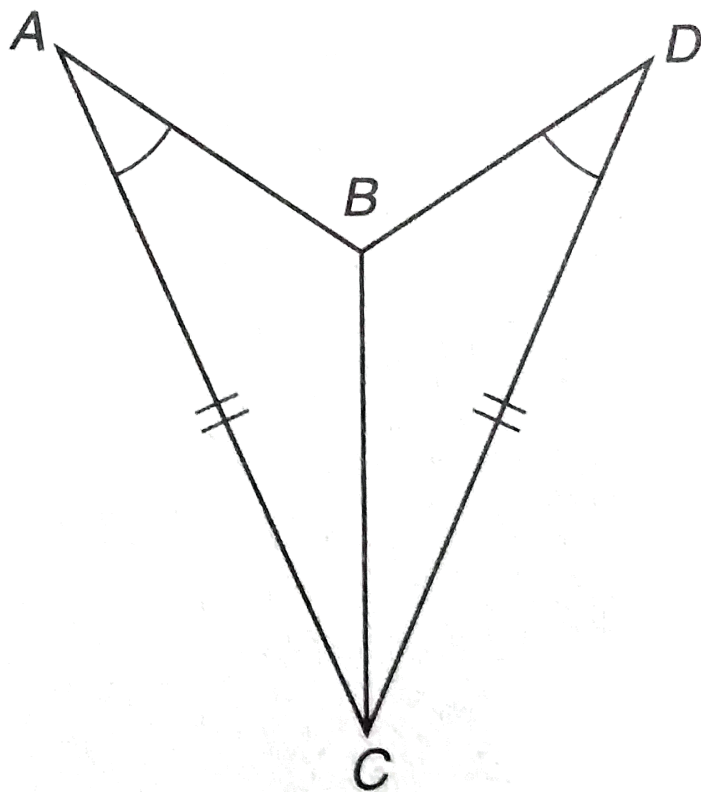
D.  $90^\circ$

**Answer: A**



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10. By which postulate or theorem are triangle ABC and triangle DBC congruent ?



A. SAS

B. SSS

C. AAS

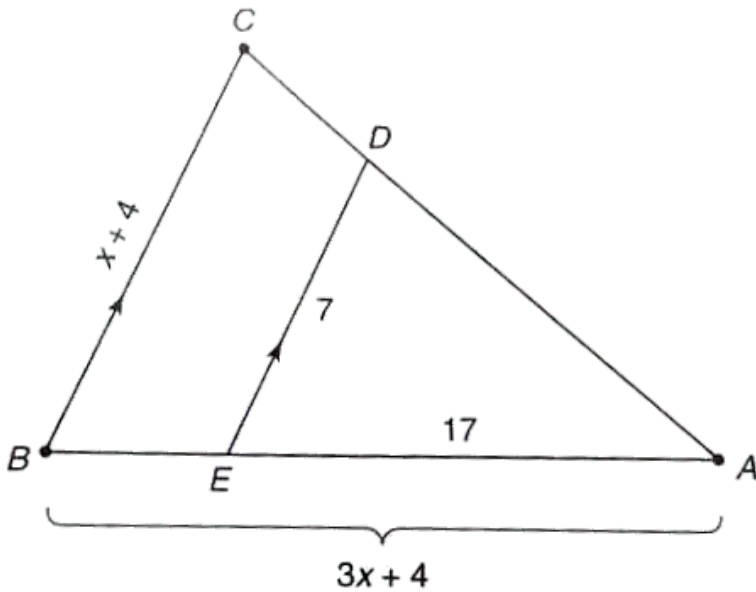
D. Cannot be determined from the given information.

**Answer: D**



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11. Find  $x$ .



A. 2.16

B. 3

C. 4.33

D. 10

**Answer: D**



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**12.** Find the arc measure of the arc cut by one side of a circumscribed regular hexagon.

A.  $30^\circ$

B.  $60^\circ$

C.  $120^\circ$

D.  $180^\circ$



**Answer: B**



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