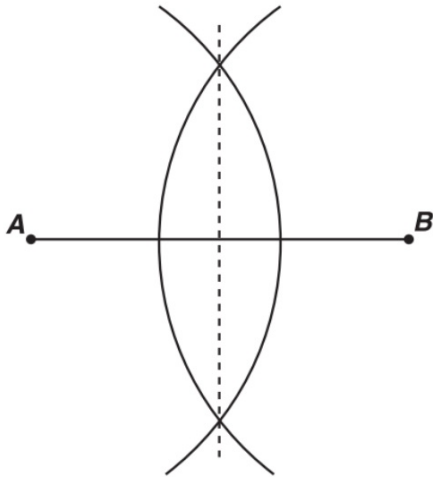
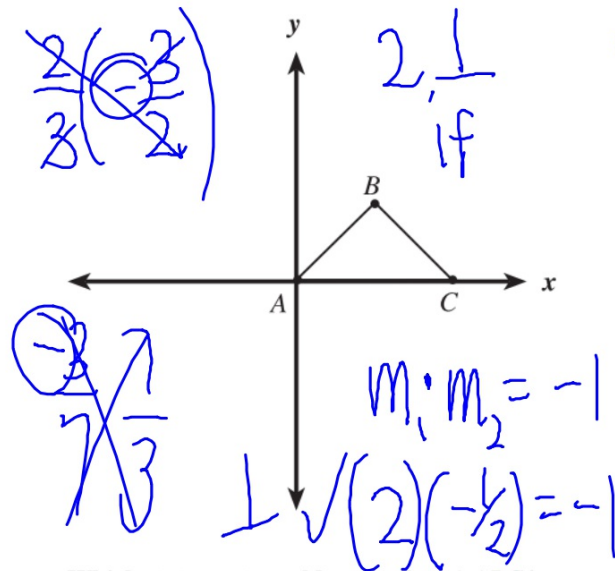


68 What geometric construction is shown in the diagram below?



- A an angle bisector
- B a line parallel to a given line
- C an angle congruent to a given angle
- D a perpendicular bisector of a segment

69 The diagram shows $\triangle ABC$.

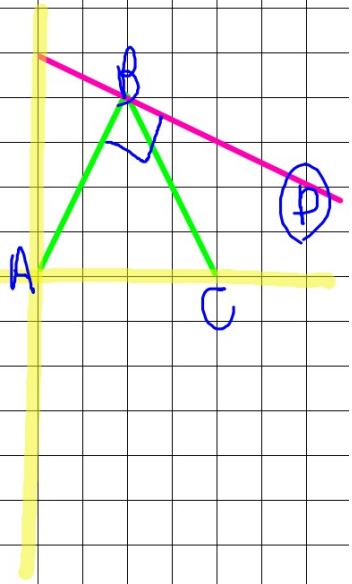


BD $m = \frac{-1}{2}$

slope AB $m = \frac{2}{1} = 2$

BC $m = \frac{-2}{1}$

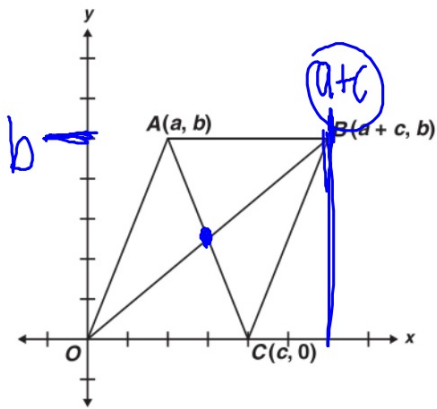
~~$m = \frac{2}{1}$~~



Which statement would prove that $\triangle ABC$ is a right triangle?

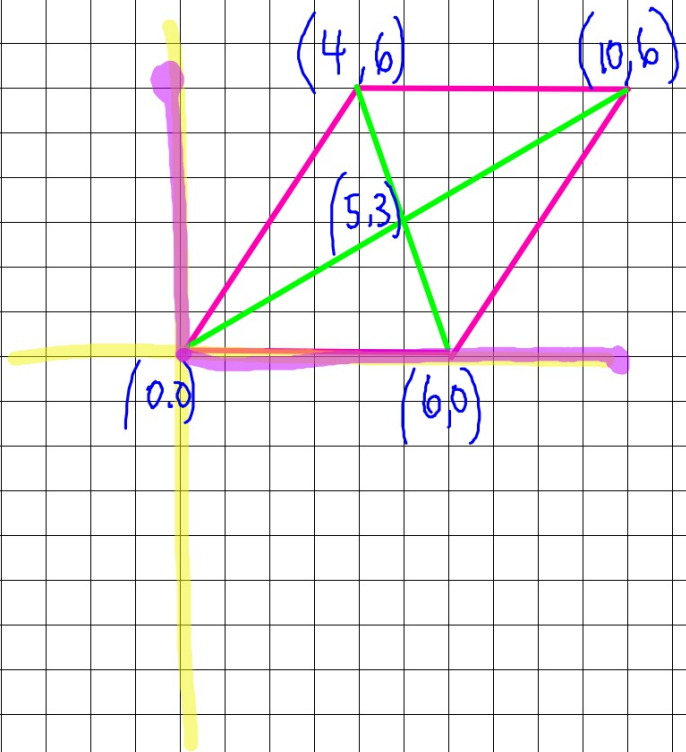
- A $(\text{slope } \overline{AB})(\text{slope } \overline{BC}) = 1$
- B $(\text{slope } \overline{AB})(\text{slope } \overline{BC}) = -1$
- C distance from A to B = distance from B to C
- D distance from A to B = - (distance from B to C)

70 Figure $ABCO$ is a parallelogram.



What are the coordinates of the point of intersection of the diagonals?

- A $\left(\frac{a}{2}, \frac{b}{2}\right)$
- B $\left(\frac{c}{2}, \frac{b}{2}\right)$
- C $\left(\frac{a+c}{2}, \frac{b}{2}\right)$
- D $\left(\frac{a+c}{2}, \frac{a+b}{2}\right)$



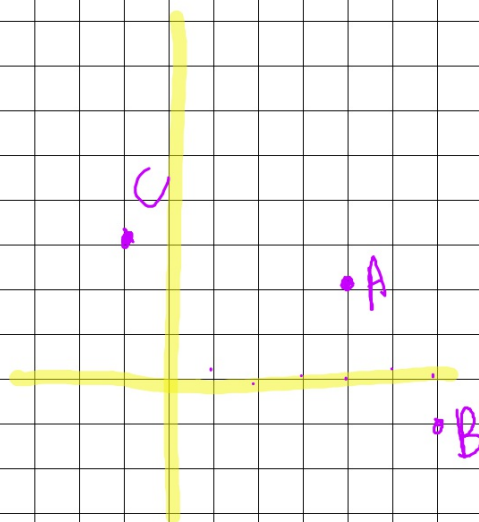
71 What type of triangle is formed by the points $A(4,2)$, $B(6,-1)$, and $C(-1,3)$?

- A right
- B equilateral
- C isosceles
- D scalene

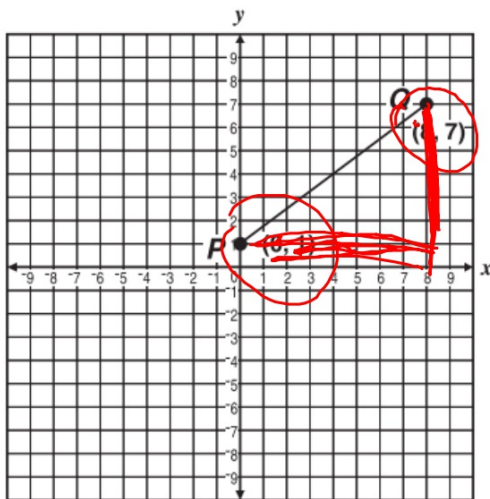
all 3 sides \neq

$$\perp = -1$$

$\parallel = m$ are equal



- 73 What is the length of line segment \overline{PQ} shown below?



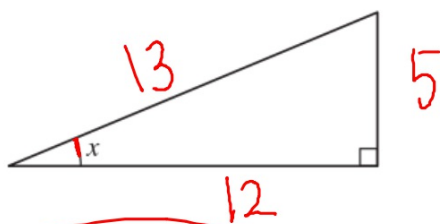
- A 9 units
- B 10 units
- C 13 units
- D 14 units

$$\sqrt{(8-0)^2 + (7-2)^2} =$$

$$8^2 + 5^2$$

$$64 + 25 = \sqrt{89}$$

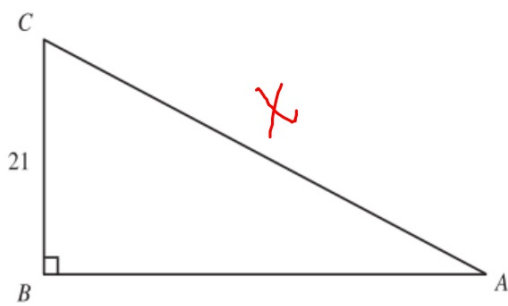
- 74 In the figure below, if $\sin x = \frac{5}{13}$, what are $\cos x$ and $\tan x$?



- A $\cos x = \frac{12}{13}$ and $\tan x = \frac{5}{12}$
- B $\cos x = \frac{12}{13}$ and $\tan x = \frac{12}{5}$
- C ~~$\cos x = \frac{13}{12}$ and $\tan x = \frac{5}{12}$~~
- D ~~$\cos x = \frac{13}{12}$ and $\tan x = \frac{13}{5}$~~

SOH
CAH
TOA

75 In the figure below, $\sin A = 0.7$.



What is the length of \overline{AC} ?

A 14.7

B 21.7

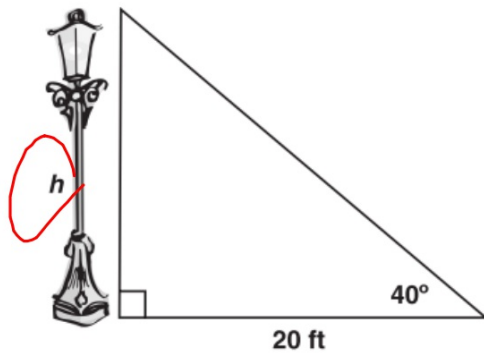
C 30

D 32

$$0.7 = \frac{21}{X}$$

$$X = \frac{21}{0.7}$$

- 76 Approximately how many feet tall is the streetlight?



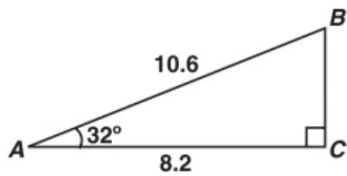
$\sin 40^\circ \approx 0.64$
$\cos 40^\circ \approx 0.77$
$\tan 40^\circ \approx 0.84$

- A 12.8
- B 15.4
- C 16.8**
- D 23.8

TOA

$$.84 = \frac{h}{20}$$

77 Right triangle ABC is pictured below.



Which equation gives the correct value for BC ?

A ~~$\sin 32^\circ = \frac{BC}{8.2}$~~

B ~~$\cos 32^\circ = \frac{BC}{10.6}$~~

C $\tan 58^\circ = \frac{8.2}{BC}$

D $\sin 58^\circ = \frac{BC}{10.6}$

$$\sin 32^\circ = \frac{BC}{10.6}$$

$$\cos 32^\circ = \frac{8.2}{10.6}$$

$$\frac{12}{13}$$

$$13 \sqrt{12^2 + 5^2}$$

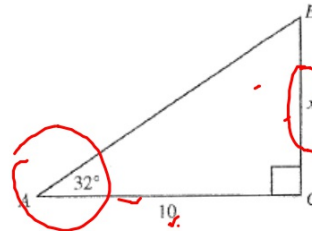
- 78 A 13-foot ladder is leaning against a brick wall. The top of the ladder touches the wall 12 feet (ft) above the ground. The bottom of the ladder is 5 ft from the bottom of the wall. What is the sine of the angle formed by the ground and the base of the ladder?



- A $\frac{5}{12}$
B $\frac{5}{13}$
C $\frac{12}{13}$
D $\frac{13}{5}$

SOH

- 79 In the accompanying diagram, $m\angle A = 32^\circ$ and $AC = 10$. Which equation could be used to find x in $\triangle ABC$?

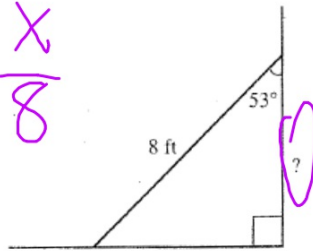


- A $x = 10 \sin 32^\circ$
B $x = 10 \cos 32^\circ$
C $x = 10 \tan 32^\circ$
D $x = \frac{10}{\cos 32^\circ}$

TOA

- 80 The diagram shows an 8-foot ladder leaning against a wall. The ladder makes a 53° angle with the wall. Which is closest to the distance up the wall the ladder reaches?

$$60 = \frac{x}{8}$$



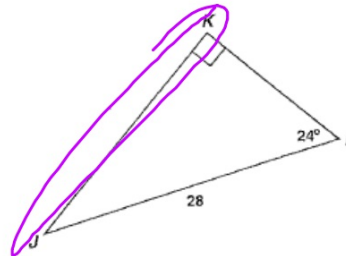
$$\begin{aligned} \sin 53^\circ &\approx 0.80 \\ \cos 53^\circ &\approx 0.60 \\ \tan 53^\circ &\approx 1.33 \end{aligned}$$

- A 3.2 ft
 B 4.8 ft
 C 6.4 ft
 D 9.6 ft

CS002942

- 81 Triangle JKL is shown below.

OH

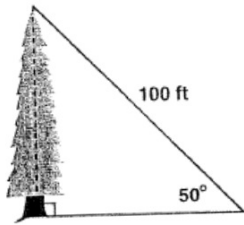


Which equation should be used to find the length of JK ?

- A $\sin 24^\circ = \frac{JK}{28}$
 B $\sin 24^\circ = \frac{28}{JK}$
 C $\cos 24^\circ = \frac{JK}{28}$
 D $\cos 24^\circ = \frac{28}{JK}$

CSG0091

- 82 What is the approximate height, in feet, of the tree in the figure below?

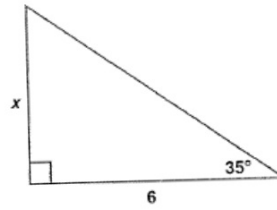


$$\begin{aligned}\sin 50^\circ &\approx 0.766 \\ \cos 50^\circ &\approx 0.643 \\ \tan 50^\circ &\approx 1.192\end{aligned}$$

- A 64.3
B 76.6
C 119.2
D 130.5

CS01126

- 83 What is the approximate value of x in the triangle below?

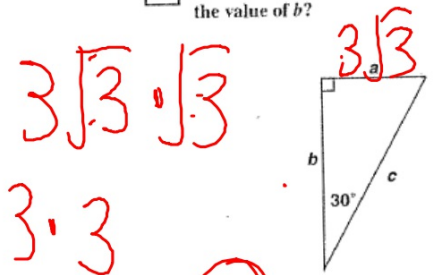


$$\begin{aligned}\sin 35^\circ &\approx 0.57 \\ \cos 35^\circ &\approx 0.82 \\ \tan 35^\circ &\approx 0.7\end{aligned}$$

- A 3.4 units
B 4.2 units
C 4.9 units
D 7.3 units

CS01127

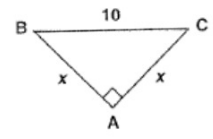
84 If $a = 3\sqrt{3}$ in the right triangle below, what is the value of b ?



- A 9
- B $6\sqrt{3}$
- C $12\sqrt{3}$
- D 18

CS01092

85 What is the value of x in the triangle below?

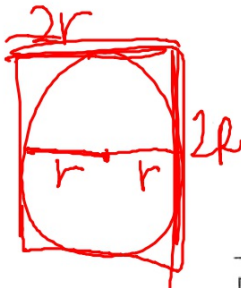
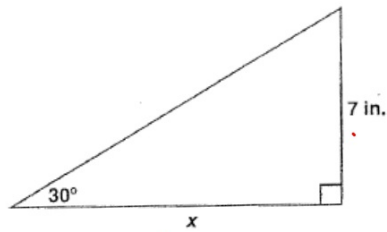


- A 5
- B $5\sqrt{2}$
- C $10\sqrt{3}$
- D 20

$$\frac{10}{\sqrt{2}} = 5\sqrt{2}$$

CS01094

- 86 What is the value of x , in inches?



- A $7\sqrt{3}$
 B 14
 C $14\sqrt{3}$
 D 21

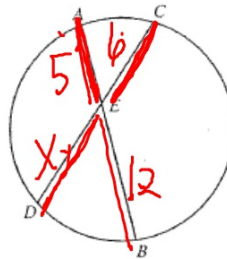
CS02999

- 87 A square is circumscribed about a circle. What is the ratio of the area of the circle to the area of the square?

- A $\frac{1}{4}$
 B $\frac{1}{2}$
 C $\frac{2}{\pi}$
 D $\frac{\pi}{4}$

$\frac{\pi r^2}{4r^2}$
 $\frac{\pi}{4}$

- 88 In the circle below, \overline{AB} and \overline{CD} are chords intersecting at E .



$$\frac{ae}{ce} = \frac{de}{be}$$

If $AE = 5$, $BE = 12$, and $CE = 6$, what is the length of \overline{DE} ?

$$\frac{5}{6} = \frac{x}{12}$$

- A 7
 B 9
 C 10
 D 15

CS09962

- A Option 1
- B Option 2
- C Option 3
- D Option 4

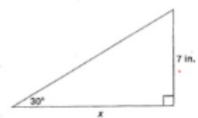
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15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70

36 37

56 What is the value of x , in inches?



A $7\sqrt{3}$

B 14

C $14\sqrt{3}$

D 21

57 A square is circumscribed about a circle. What is the ratio of the area of the circle to the area of the square?

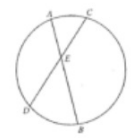
A $\frac{1}{4}$

B $\frac{1}{2}$

C $\frac{2}{\pi}$

D $\frac{\pi}{4}$

58 In the circle below, \overline{AB} and \overline{CD} are chords intersecting at E .



If $AE = 5$, $BE = 12$, and $CE = 6$, what is the length of DE ?

A 7

B 9

C 10

D 13

Multiple Choice - 1 response

start

Statistics & Formula

ActiVox - Study

11 Evaluation - Home

11:46 AM

