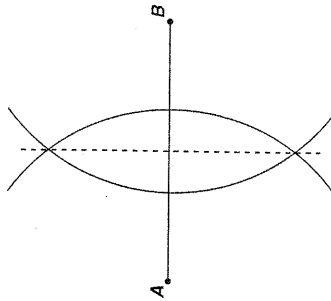


Released Test Questions

Geometry

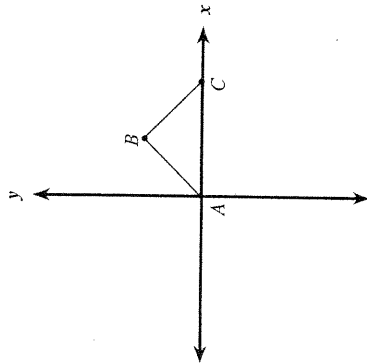
68 What geometric construction is shown in the diagram below?



- 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

CSDE00018

69 The diagram shows $\triangle ABC$.



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

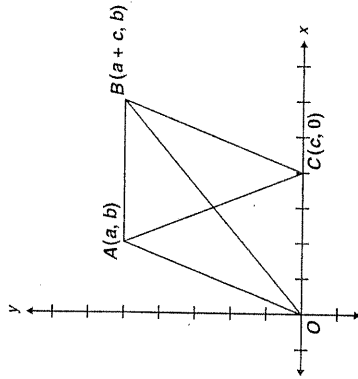
- A $(\text{slope } \overline{AB})(\text{slope } \overline{BC}) = 1$
- B $(\text{slope } \overline{AB})(\text{slope } \overline{BC}) = -1$
- C distance from A to B = distance from B to C
- D distance from A to B = -(distance from B to C)

CSDE00019

Geometry

Released Test Questions

70 Figure $ABCO$ is a parallelogram.



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

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

CSDE00020

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

CSDE00021

72 The point $(-3, 2)$ lies on a circle whose equation is $(x+3)^2 + (y+1)^2 = r^2$. Which of the following must be the radius of the circle?

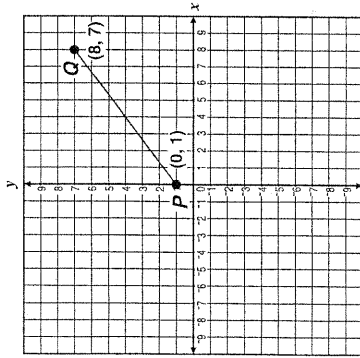
- A 3
- B $\sqrt{10}$
- C 9
- D 10

CSDE00022

Released Test Questions

Geometry

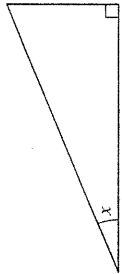
73 What is the length of line segment \overline{PQ} shown below?



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

CSDE0540

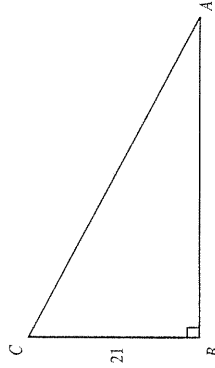
74 In the figure below, if $\sin x = \frac{5}{13}$, what are $\cos x$ and $\tan x$?



- 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 $\tan x = \frac{13}{5}$

CSDE0540

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



What is the length of \overline{AC} ?

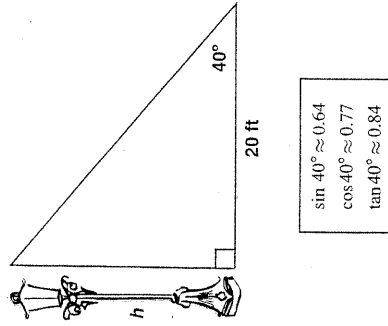
- A 14.7
- B 21.7
- C 30
- D 32

CSDE0540

Geometry

Released Test Questions

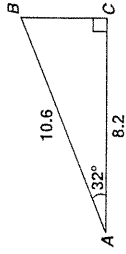
76 Approximately how many feet tall is the streetlight?



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

CSDE0540

77 Right triangle ABC is pictured below.



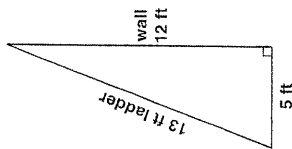
Which equation gives the correct value for BC ?

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

CSDE0540

Released Test Questions

- 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?

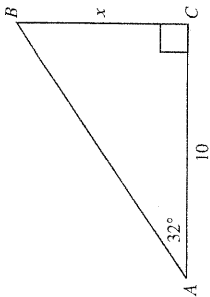


- A $\frac{5}{12}$
- B $\frac{5}{13}$
- C $\frac{12}{13}$
- D $\frac{13}{5}$

CS01044

Geometry

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

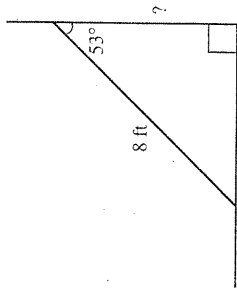


- A $x = 10 \sin 32^\circ$
- B $x = 10 \cos 32^\circ$
- C $x = 10 \tan 32^\circ$
- D $x = \frac{10}{\cos 32^\circ}$

CS02016

Geometry

- 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?



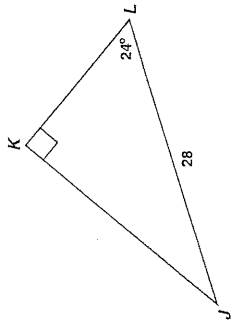
$\sin 53^\circ \approx 0.80$
 $\cos 53^\circ \approx 0.60$
 $\tan 53^\circ \approx 1.33$

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

CS02042

Released Test Questions

- 81 Triangle JKL is shown below.



Which equation should be used to find the length of \overline{JK} ?

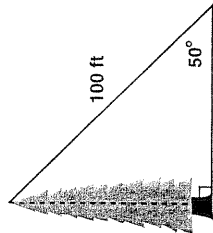
- A $\sin 24^\circ = \frac{JK}{28}$
- B $\sin 24^\circ = \frac{28}{JK}$
- C $\cos 24^\circ = \frac{JK}{28}$
- D $\cos 24^\circ = \frac{28}{JK}$

CS02041

Released Test Questions

Geometry

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

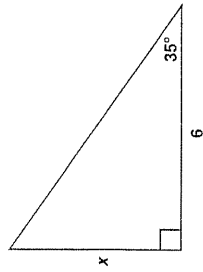


$\sin 50^\circ \approx 0.766$ $\cos 50^\circ \approx 0.643$ $\tan 50^\circ \approx 1.192$

- A 64.3
- B 76.6
- C 119.2
- D 130.5

CS00126

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



$\sin 35^\circ \approx 0.57$ $\cos 35^\circ \approx 0.82$ $\tan 35^\circ \approx 0.7$

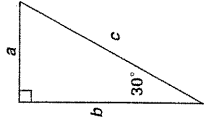
- A 3.4 units
- B 4.2 units
- C 4.9 units
- D 7.3 units

CS00169

Geometry

Released Test Questions

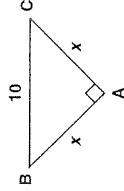
84 If $a = 3\sqrt{3}$ in the right triangle below, what is the value of b ?



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

CS00162

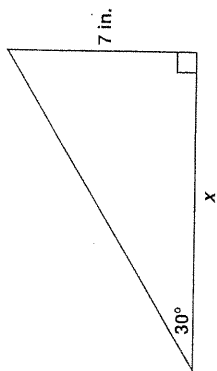
85 What is the value of x in the triangle below?



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

CS00164

86 What is the value of x , in inches?



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

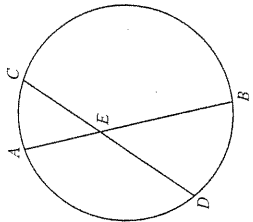
CSZ03099

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 $\frac{\pi}{4}$

CSZ04045

88 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 \overline{DE} ?

- A 7
- B 9
- C 10
- D 13

CSZ00022