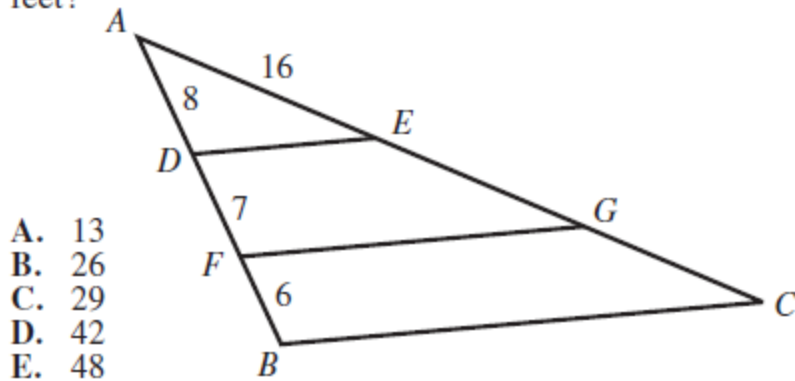


Some Math Problems (Set 4) ... SAT or ACT Practice (Geometry)

9. In the figure shown below, E and G lie on \overline{AC} , D and F lie on \overline{AB} , \overline{DE} and \overline{FG} are parallel to \overline{BC} , and the given lengths are in feet. What is the length of \overline{AC} , in feet?



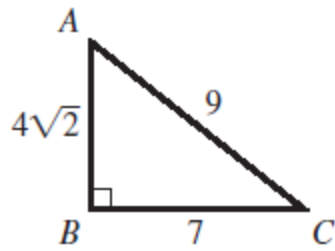
12. In the standard (x,y) coordinate plane, the point $(2,1)$ is the midpoint of \overline{CD} . Point C has coordinates $(6,8)$. What are the coordinates of point D ?

- F. $(-2, -\frac{7}{2})$
G. $(-2, -6)$
H. $(4, \frac{9}{2})$
J. $(10, 10)$
K. $(10, 15)$

Some Math Problems (Set 4) ... SAT or ACT Practice (Geometry)

17. In right triangle $\triangle ABC$ shown below, the given lengths are in millimeters. What is $\sin A$?

- A. $\frac{4\sqrt{2}}{9}$
- B. $\frac{4\sqrt{2}}{7}$
- C. $\frac{7\sqrt{2}}{8}$
- D. $\frac{7}{9}$
- E. $\frac{9}{7}$

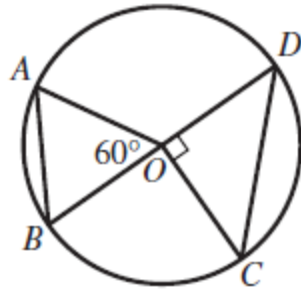


19. Loto begins at his back door and walks 8 yards east, 6 yards north, 12 yards east, and 5 yards north to the barn door. About how many yards less would he walk if he could walk directly from the back door to the barn door?

- A. 8
- B. 19
- C. 23
- D. 26
- E. 31

Some Math Problems (Set 4) ... SAT or ACT Practice (Geometry)

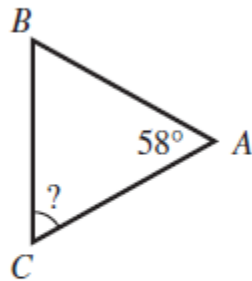
21. In the figure below, A , B , C , and D lie on the circle centered at O .



Which of the following does NOT appear in the figure?

- A. Acute triangle
- B. Equilateral triangle
- C. Isosceles triangle
- D. Right triangle
- E. Scalene triangle

25. In $\triangle ABC$ shown below, the measure of $\angle A$ is 58° , and $\overline{AB} \cong \overline{AC}$. What is the measure of $\angle C$?



- A. 32°
- B. 42°
- C. 58°
- D. 61°
- E. 62°

Some Math Problems (Set 4) ... SAT or ACT Practice (Geometry)

34. In the standard (x,y) coordinate plane, a circle with its center at $(8,5)$ and a radius of 9 coordinate units has which of the following equations?

F. $(x - 8)^2 + (y - 5)^2 = 81$

G. $(x - 8)^2 + (y - 5)^2 = 9$

H. $(x + 8)^2 + (y + 5)^2 = 81$

J. $(x + 8)^2 + (y + 5)^2 = 9$

K. $(x + 5)^2 + (y + 8)^2 = 81$

40. Regardless of how the graph is oriented in the standard (x,y) coordinate plane, NO graph in one of the following categories has a vertical line of symmetry. Which one?

F. Line

G. Square

H. Pentagon

J. Parallelogram

K. Scalene triangle

Some Math Problems (Set 4) ... SAT or ACT Practice (Geometry)

59. The figure below shows a flying kite. At a certain moment, the kite string forms an angle of elevation of 75° from point A on the ground. At the same moment, the angle of elevation of the kite at point B , 240 ft from A on level ground, is 45° . What is the length, in feet, of the string?

- A. $60\sqrt{3}$
- B. $80\sqrt{6}$
- C. 144
- D. 180
- E. 240

