DD6

1.

A spherical ball has a diameter of 10 centimeters. Which is closest to the volume of the ball?

F 524 cm^3

G 393 cm^3

H 4189 cm^3

J 105 cm^3

2.

Which of the following represents the parent function of $y = x^2 - 2x - 15$?

A $y = x$

B $y = x^2 - 15$

C $y = x^2$

D $y = -2x$

3.

Lorraine wants to paint the 4 rectangular walls of a room, including the door. The room is 18 feet long and 12 feet wide, and the walls are 10 feet high. What is the total area that will be painted?

F 300 ft^2

G 600 ft^2

H 816 ft^2

J 864 ft^2

4.

For what value of x is $(x, -3)$ a solution for $4x - 3y = 21$?

A 11

B -3

C -11

D 3

5.

Find the x- and y-intercepts of $-4x + 7y = -28$.

A x-intercept: $(-4, 0)$

  y-intercept: $(0, 7)$

B x-intercept: $(7, 0)$

  y-intercept: $(0, -4)$
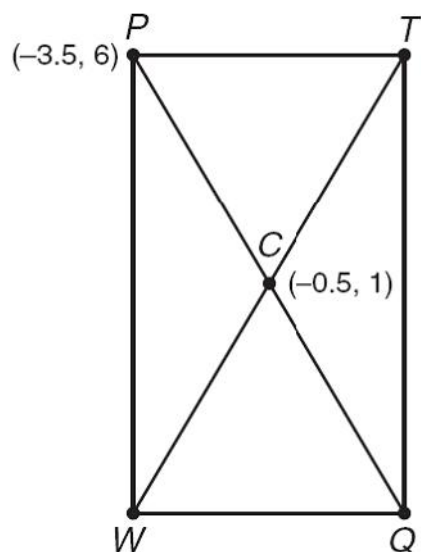
C x-intercept: $(0, 7)$

  y-intercept: $(-4, 0)$

D x-intercept: $(0, -4)$

  y-intercept: $(7, 0)$

6.

The midpoint of the diagonals of rectangle $PTQW$ is $(-0.5, 1)$. The coordinates of P are $(-3.5, 6)$. What are the coordinates of Q?
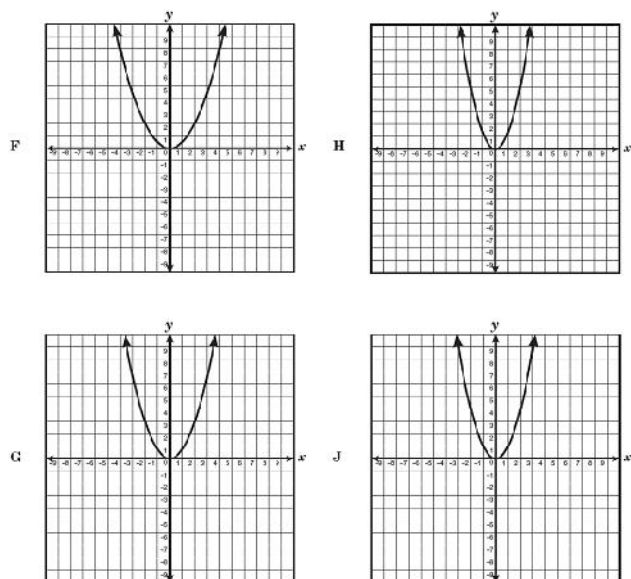

A $(-2, 3.5)$

B $(-6.5, 11)$

C $(-1.5, 2.5)$

D $(2.5, -4)$

7.

The graphs below represent functions of the form $y = ax^2$. In which of the following graphs does a have the smallest value?

F

H

G

J

8.

Look at the solid sphere and the cylinder containing water shown in Figure 1.

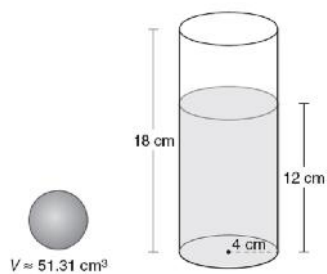
18 cm

12 cm

4 cm

$V \approx 51.31$ cm³

Figure 1

Figure 2 shows the sphere submerged in the water inside the cylinder.

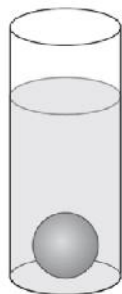Figure 2 shows the sphere submerged in the water inside the cylinder.

Figure 2

Which is closest to the height of the water level in Figure 2?

F   13 cm

G   17 cm

H   15 cm

J   11 cm