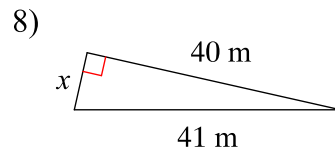
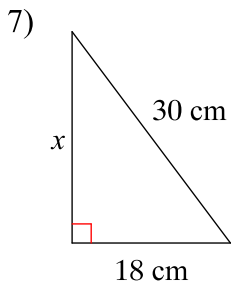
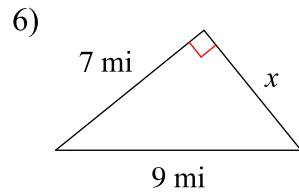
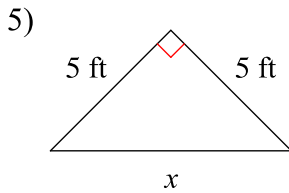
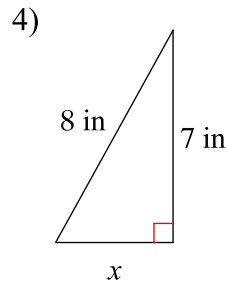
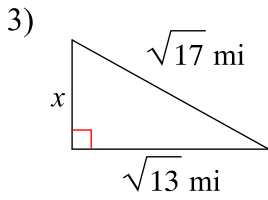
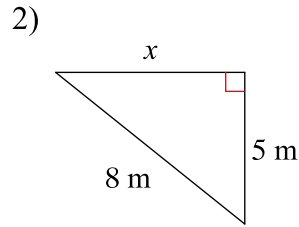
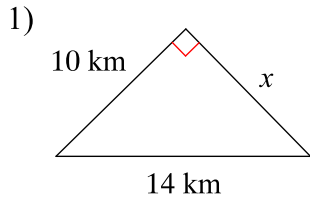


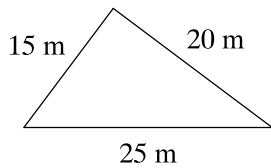
Honors Math 8 - "The Pythagorean Theorem"

Find the missing side of each triangle. If necessary, leave your answers in simplest radical form.

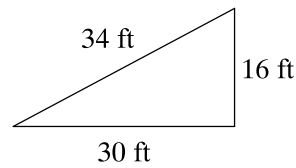


State if each triangle is a right triangle. Show how you know!

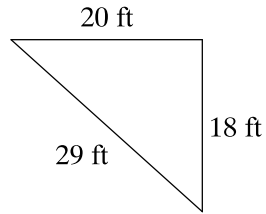
9)



10)



11)



State if the three sides lengths form a right triangle. Show how you know!

12) 3 m, 15 m, 17 m

13) 12 mi, 35 mi, 37 mi

14) 20 ft, 32 ft, 40 ft

Find the missing side. If necessary, write your answers in simplest radical form.

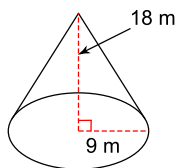
15) A rectangle has a base of 21 km, and a height of 28 km. Find the length of the diagonal.

16) If a rectangle has a height of 18 in, and a diagonal length of 30 in, what is the length of the base.

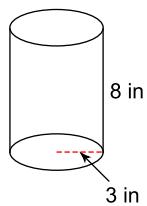
17) A baseball infield is in the shape of a square. If it is 90 feet between each base, how far is it from home plate to second base?

Find the volume of each figure. Leave your answers in terms of π .

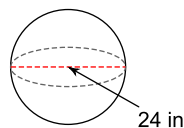
18)



19)

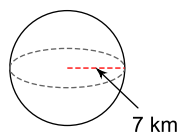


20)

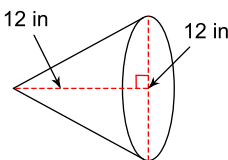


Find the volume of each figure. Round your answers to the nearest hundredth, if necessary.

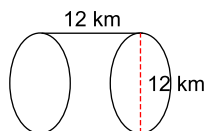
21)



22)



23)



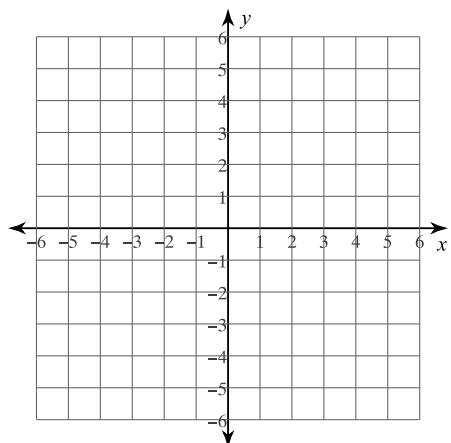
Solve each proportion.

24) $\frac{2}{5} = \frac{4}{p-7}$

25) $\frac{8}{9} = \frac{b-6}{10}$

Sketch the graph of each line.

26) $5x + 4y = -12$



27) Convert to a ratio: $x = 0.\overline{61}$

$100x = \underline{\hspace{2cm}}$

$-10x = -\underline{\hspace{2cm}}$

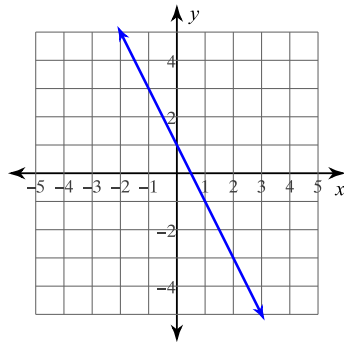
$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Ratio = $\underline{\hspace{2cm}}$

Write the slope-intercept form of the equation of each line.

28)



29) Convert to a ratio: $x = 0.\overline{123}$

$$1,000x = \underline{\hspace{2cm}}$$

$$-10x = -\underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$\text{Ratio} = \underline{\hspace{2cm}}$$

Write the slope-intercept form of the equation of the line through the given point with the given slope.

30) through: $(-4, -5)$, slope = $\frac{1}{2}$

Write the slope-intercept form of the equation of the line through the given points.

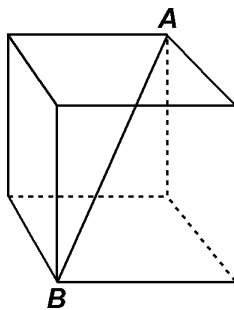
31) through: $(-4, -2)$ and $(3, -5)$

Write the slope-intercept form of the equation of the line described.

32) through: $(-2, 0)$, parallel to $y = \frac{5}{2}x + 3$

33) through: $(-4, -1)$, perp. to $y = -x + 2$

34) The cube shown in the accompanying diagram has sides of length 8. What is the length of the diagonal AB?



35) The accompanying diagram shows a rectangular prism. Find, in radical form, the length of diagonal AB.

