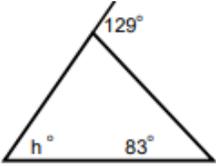
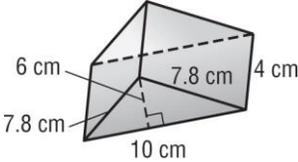
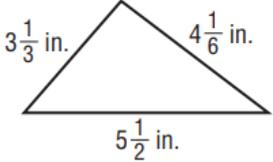




8th Grade Summer "Problem a Day"



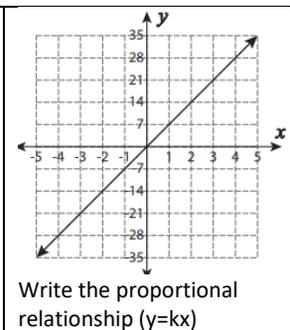
<p>Solve $\frac{5}{8}(x + 4) = 0.25$. Use fractions to solve and write your answer as a mixed number.</p>	<p>Do the inequalities $-6x - 7 < -91$ and $6x - 19 < 65$ have the same solution? Explain, and find the solution.</p>	<p>solve $5k \geq -45$</p> 	<p>$\frac{y}{6} - 3 = -11$</p>	<p>If the radius of a circle is 16 inches, find the diameter, area, and circumference</p>	<p>If Sophia bought 9 red peppers for \$5.40, how much should she pay for 14 peppers?</p>	<p>On Saturday, Hattie biked 3.2 hours at a speed of 12.5 miles per hour. On Sunday, she biked 2.5 hours at a speed of 14.3 miles per hour. How much farther did she bike on Saturday?</p>
<p>$(-3) \times (+4)$</p> 	<p>The mean distance of the earth from the sun is 93 million miles. The distance varies by 1.6 million miles. What are the maximum and minimum distances of the earth from the sun?</p>	<p>The original price of a DVD is \$9. The sale price is 20% off the original price. What is the sale price of the DVD?</p>	<p>Simplify the expression $4(3x + 7y)$</p>	<p>$25.3 = s + 6.2$</p> 	<p>An Olympic pool is 50 meters long. About how many feet is that? (1 foot=0.3 meters)</p>	<p>Write as decimals and then order from least to greatest.</p> <div style="display: flex; flex-wrap: wrap; gap: 10px;"> <div style="border: 1px solid gray; padding: 2px;">243%</div> <div style="border: 1px solid gray; padding: 2px;">$2\frac{1}{2}$</div> <div style="border: 1px solid gray; padding: 2px;">$2.\overline{42}$</div> <div style="border: 1px solid gray; padding: 2px;">$2\frac{4}{9}$</div> <div style="border: 1px solid gray; padding: 2px;">2.45</div> <div style="border: 1px solid gray; padding: 2px;">2.462</div> </div>
<p>Piper wants to buy enough potting soil to fill a flower box that is 30 inches long, 12 inches wide, and 8 inches tall. If one bag of potting soil contains 576 cubic inches, how many bags should she buy?</p>	 <p>Find the measure of angle h</p>	<p>Find the Volume</p> 	<p>$99.2 = 6.2y$</p> 	<p>Kanye drank 1.9 liters of water today. Madison drank 1,800 milliliters of water today. Manisha drank 7.5 cups of water today. Who drank the most water today?</p>	<p>Angle 1 and angle 2 are supplementary. If $m\angle 1 = 63^\circ$, what is $m\angle 2$?</p>	<p>Kiah needs fabric to make decorations for her cheerleading squad. She cuts $3\frac{3}{4}$ feet from a piece of fabric with a length of $7\frac{7}{8}$ feet. With the fabric she has left, Kiah makes 11 decorations of equal size. How many inches of fabric does each decoration use?</p>
<p>Find the perimeter</p> 	<p>A vehicle moving at a constant speed travels 45 miles in $\frac{3}{4}$ hour. The driver thinks he will be late to a meeting that is still 65 miles away and that starts in 1.25 hours. Assume he maintains a constant speed. Find the driver's unit rate of speed.</p>	<p>Factor the expression $42x + 12y$</p> 	<p>Find the percent change of \$12 to \$6</p>	<p>$-25 + (-12)$</p>	<p>$-3m - 21 = -6$</p> 	<p>Eight trucks hold a total of $10\frac{1}{2}$ tons of cargo. Half the trucks are large and the rest are small. Each large truck holds twice as much cargo as a small truck. How much cargo can two large trucks and one small truck hold?</p>

evaluate each expression if $x = 2$, $y = \frac{3}{5}$, and $z = 5$?
 $x^2 + 5y \div z$

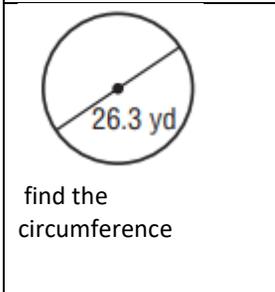
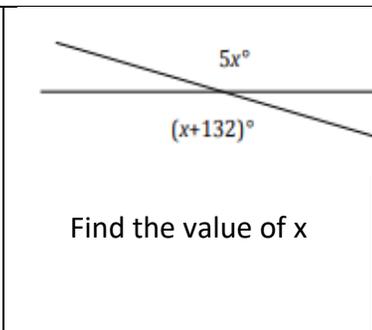
A painter can paint 150 square feet per hour. He charges \$0.33 per square foot. Today he paints for 4.5 hours. How much will he charge?

Use the Distributive Property to rewrite each algebraic expression.
 $3(w + 1.6)$

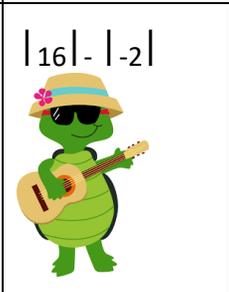
$$2\frac{5}{6} \times \frac{1}{3}$$



Solve $k + 85 = 111$

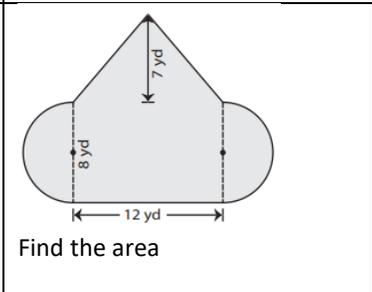
On Saturday afternoon, 41 out of 50 telephone calls taken at The Overlook restaurant were for dinner reservations. What percent of the telephone calls were for dinner reservations?



Write $-\frac{1}{40}$ as a decimal

The temperature in Athens was 30°F . Five minutes later it was 20°F . What was the average change in temperature per minute as an integer?

Mrs. Gonzales's pool is filling with water at a rate of $\frac{1}{8}$ of the pool every 25 minutes. How many minutes will it take for her pool to be 62% full of water?

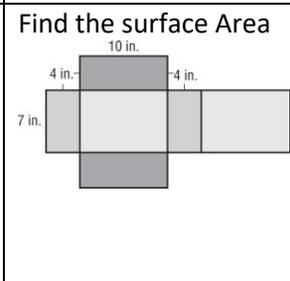


The pizza costs \$8 plus 8% sales tax, and Esperanza wishes to tip twice the amount of the sales tax. How much total money does she need?

$$\frac{4}{5} \cdot (-6)$$

The slope of the line passing through $(-9, -6)$ and $(-15, y)$ is $\frac{2}{3}$. What is the value of y?

Eric took out \$85,000 in student loans with a simple interest rate of 7.5%. He takes 10 years to repay the loans. How much will Eric pay in all?



Find the surface Area



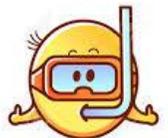
$$(-63) \div (-7)$$

Bart can type 296 words in 8 minutes. At this rate, how many words can he type in 20 minutes?

In a volleyball game, Alexis scored 4 points more than twice the number of points Jessica scored. Jessica scored 3 points. How many points did Alexis score?

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

$(+7) - (-8)$



Name the multiplication property shown the equation $12 \cdot m = m \cdot 12$.

Jana ran the first $3\frac{1}{2}$ miles of a 5-mile race in $\frac{1}{3}$ hour. What was her average rate, in miles per hour, for this first part of the race? Explain how you solved the problem.

Add $(-2x + 4) + (4x + 6)$

What is the constant of proportionality? Express your answer as $y = kx$

Cans of Paint (x)	5	10	6
Bird Houses Painted (y)	15	30	18

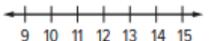
Rasida ran 5 more miles than 2 times the number of miles Dia ran this week. Rasida ran 27 miles this week. Write an equation and solve.

What is the value of $6a + 2b$ if $a = 1$ and $b = 2$?

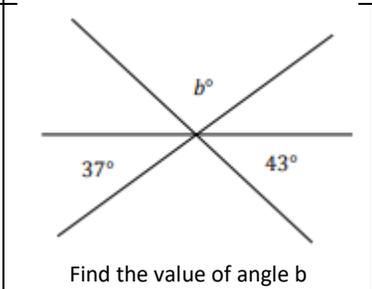
$$\frac{22}{11} = \frac{r}{13}$$

Scores at a truck pull were based on the distance the truck stopped from the finish line. Order these scores from least to greatest: $-5\frac{3}{4}$, -7.2 , 9 , and $3\frac{1}{8}$

Alonzo is \$120 in debt. He makes \$15 per hour. He wants to have at least \$75 left over after he has paid off his debt. Write an inequality and graph the solution.



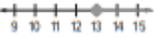
A gift box in the shape of a triangular prism has a volume of 36 cubic inches, a base height of 4 inches, and a height of 3 inches. What is the length of the base?



Answers Page 1

$-3\frac{3}{5}$	no; Sample answer: To solve $-6x - 7 < -91$ you divide by -6 , which reverses the inequality sign to $>$. The solution is $x > 14$. To solve $6x - 19 < 65$, you divide by 6 , which does not reverse the inequality sign. The solution is $x < 14$.	$k \geq -9$ 	-48	Diameter = 32 inches Circumference = 100.48 inches Area = 803.84 in ²	\$8.40	4.25 miles  Summer Vacation
-12	91.4 million, 94.6 million	\$7.20	$12x + 28y$	19.1	About 166.67 feet	<input type="text" value="2.42"/> < <input type="text" value="2.43"/> < <input type="text" value="2.4"/> < <input type="text" value="2.45"/> < <input type="text" value="2.462"/> < <input type="text" value="2.5"/>
5 Bags	$h = 46$	120 cm^3	16	Kanye; sample answer: He drank 1.9 L = 1,900 mL. Madison drank 1,800 mL. Manisha drank 7.5 c \approx 1,774 mL. Because $1,900 > 1,800 > 1,774$, Kanye drank the most water.	117 degrees	$4\frac{1}{2}$ inches
13 inches	60 mph	$6(7x + 2y)$	0.5 or 50%	-37	-5	4.375 tons

Answers Page 2

$4\frac{3}{5}$	\$222.75	$3w + 4.8$	$\frac{17}{18}$	$Y=7x$	26	33 degrees
82.6 yards	82%	14	-0.025	-2 degrees per minute	124 minutes	188.24 yards ²
\$9.92	$-\frac{24}{5}$ or $-4\frac{4}{5}$	-10	\$148,750	276 in ²	9	740 wpm
10 points	30	15	Commutative Property	$10\frac{1}{2}$ mph	$2x + 10$	$Y=3x$
$2x + 5 = 27$ 11 miles	10 	26	-7.2, $-5\frac{3}{4}$, $3\frac{1}{8}$, 9	$15x - 120 \geq 75$, or $15x \geq 195$ 	6 inches	100 degrees