

Placement Test

Converting
Fractions, Decimals,

$$\frac{1}{7} \quad \frac{2}{9} \quad \frac{3}{4}$$

Adding and Subtracting Decimals

$$5.54 + 743.259 \quad 4 \quad 3.18 - 643.269$$

Multiplying and Dividing Decimals Using Traditional Methods

$$\begin{array}{r} 5 \\ \times \\ \hline \end{array} \begin{array}{r} 3.80 \\ 3.72 \\ \hline \end{array}$$

$$0.05 \overline{)8.931}$$

$$3.72 \overline{)51.336}$$

Percents

1) 79% of 90

2) 8% of 50

Converting Fractions, Decimals, and Percentages

Convert the following:

to a fraction
51.11

to a decimal
53 $\frac{7}{25}$

to a percent
0.36

to a fraction
57%

Adding and Subtracting Negative Numbers

$$-14 + (-13)$$

$$-2 - (-6)$$

$$-17 - (-8)$$

$$-14 + (-9)$$

Multiplying and Dividing Negative Numbers

5 | $-20 \times (-16)$

6 | $-4 \div (-6)$

Ratios and Proportions

What are 2 other ways to write the following ratio?
9 to 6

Solve the proportion for x:

$$\frac{4}{20} = \frac{x}{100}$$

Mean, Median, and Mode

Identify the mean, median, and mode of the following:

8 , 40 , 22 , 76 , 70 , 60 , 76

Mean

Median

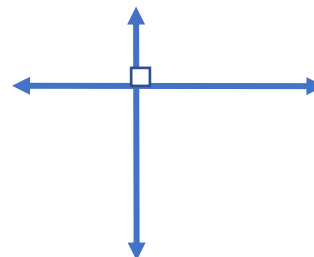
Mode

Lines and Angles

Identify the following lines as parallel, intersecting, or perpendicular:







Identify the following as a line, a line segment, or ray:







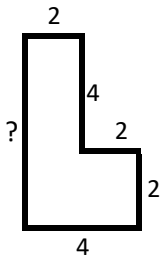
Identify the following angles as acute, obtuse, or right:



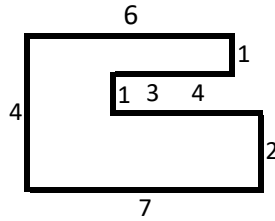




Area and Perimeter



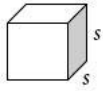
Area:
Perimeter:



Area:
Perimeter:

Volume and Surface Area

$$S = 6s^2$$

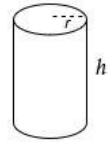


Cube

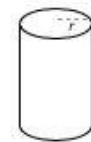
$$V = s^3$$



$$S = 2\pi r^2 + 2\pi r h$$

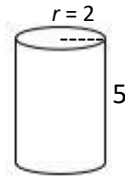
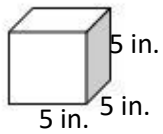


Cylinder

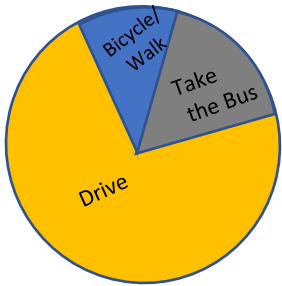


$$V = \pi r^2 h$$

Find the volume and surface area of the following cube and cylinder:



Reading and Interpreting Graphs



A poll was taken recently in a small southern town to determine how many people drive to work, take the bus, or ride a bicycle/walk. The results are shown in the chart.

How do most people get to work?

Approximately what percentage of people drive to work?

Do more people take the bus or a bicycle?

Square Roots

Identify the square root of the following perfect squares:

$$\sqrt{36}$$

$$\sqrt{16}$$

$$\sqrt{144}$$

$$\sqrt{121}$$

Solving Two-Step Equations

$$2x + 12 = 28$$

$$11x - 10 = 24$$

=

Solving Algebraic Expressions

Solve $3(x + 2) = 4y - 5x$, if $x = 2$ and y

$= 3$

Placement Test

Converting Fractions, Decimals,

$$\begin{array}{r} 1 \overline{) 2} \\ 7 \end{array} \quad \begin{array}{r} 2 \overline{) 4} \\ 9 \end{array} \quad \begin{array}{r} 3 \overline{) } \\ \end{array}$$

$$0.286 \quad 0.444$$

Adding and Subtracting Decimals

$$5.54 + \begin{array}{r} 743.259 \\ 743.259 \\ + 5.540 \\ \hline 748.799 \end{array} \quad \begin{array}{r} 4 \overline{) 3.18 - 643.269} \\ 643.269 \\ - 3.180 \\ \hline 640.089 \end{array}$$

Multiplying and Dividing Decimals Using Traditional Methods

$$\begin{array}{r} 5 \overline{) 3.80} \\ \times 3.72 \\ \hline 760 \\ 26600 \\ 114000 \\ \hline 14.1360 \end{array} \quad \begin{array}{r} 0.05 \overline{) 178.620} \\ 8.931 \\ \underline{5} \\ 39 \\ \underline{35} \\ 43 \\ \underline{40} \\ 31 \\ \underline{30} \\ 10 \\ \underline{10} \\ 0 \end{array} \quad \begin{array}{r} 3.72 \overline{) 51.336} \\ 13.8 \\ \underline{372} \\ 1413 \\ \underline{1116} \\ 2976 \\ \underline{2976} \\ 0 \end{array}$$

Percents

<p>1) 79% of 90</p> $\begin{array}{r} 90 \\ \times 0.79 \\ \hline 71.1 \end{array}$	<p>2) 8 % of 50</p> $\begin{array}{r} 50 \\ \times 0.08 \\ \hline 4.00 \end{array}$
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Converting Fractions, Decimals, and Percentages

Convert the following:

to a fraction	to a decimal	to a percent	to a fraction
51.11	53 7/25	0.36	57%
$51 \frac{11}{100}$	53.280	36%	$57/100$

Adding and Subtracting Negative Numbers

$-14 + (-13)$ $-14 - 13 = -27$	$-2 - (-6)$ $-2 + 6 = 4$	$-17 - (-8)$ $-17 + 8 = -9$	$-14 + (-9)$ $-14 - 9 = -23$
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Multiplying and Dividing Negative Numbers

$$\underline{5} \quad -20 \times (-16) = 320$$

$$\underline{6} \quad -4 \div (-6) = \frac{-4}{-6} = \frac{2}{3}$$

Ratios and Proportions

What are 2 other ways to write the following ratio?

9 to 6

9
6 or 9 : 6

Solve the proportion for x:

$$\frac{4}{20} = \frac{x}{100}$$

$$\frac{20x}{20} = \frac{400}{20}$$

$$x = 20$$

Mean, Median, and Mode

Identify the mean, median, and mode of the following:

8, 40, 22, 76, 70, 60, 76

Mean **50**

Median **60**

Mode **76**

Lines and Angles

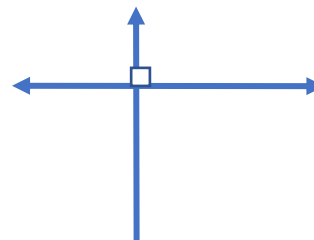
Identify the following lines as parallel, intersecting, or perpendicular:



intersecting



parallel



perpendicular

Identify the following as a line, a line segment, or ray:



line segment



ray



line



ray

Identify the following angles as acute, obtuse, or right:



acute

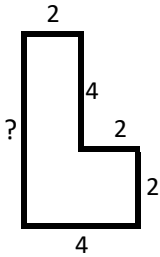


right

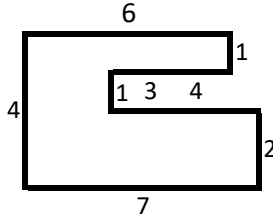


obtuse

Area and Perimeter



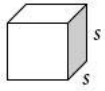
Area: **16 sq. in.**
Perimeter: **20 in.**



Area: **23 sq. in.**
Perimeter: **28 in.**

Volume and Surface Area

$$S = 6s^2$$

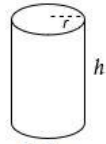


Cube

$$V = s^3$$



$$S = 2\pi r^2 + 2\pi r h$$

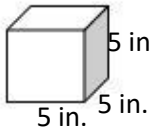


Cylinder



$$V = \pi r^2 h$$

Find the volume and surface area of the following cube and cylinder:



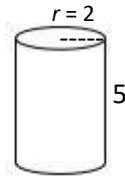
$$S = 6 (5)^2$$

$$6 (25)$$

$$150 \text{ in}^2$$

$$V = (5)^3$$

$$125 \text{ cubic in.}$$



$$S = 2\pi (2)^2 + 2\pi (2) (5)$$

$$2\pi (4) + 2\pi (10)$$

$$8\pi + 20\pi$$

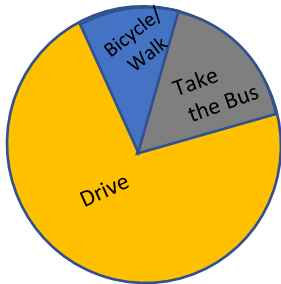
$$28\pi$$

$$V = \pi (2)^2 (5)$$

$$4\pi (5)$$

$$20\pi$$

Reading and Interpreting Graphs



A poll was taken recently in a small southern town to determine how many people drive to work, take the bus, or ride a bicycle/walk. The results are shown in the chart.

How do most people get to work? **They drive**

Approximately what percentage of people drive to work?

Approximately 75%

Do more people take the bus or a bicycle? **Bus**

Square Roots

Identify the square root of the following perfect squares:

$$\sqrt{36}$$

6

$$\sqrt{16}$$

4

$$\sqrt{144}$$

12

$$\sqrt{121}$$

11

Solving Two-Step Equations

$$2x + 12 = 28$$

$$\underline{-12 \quad -12}$$

$$\underline{2x = 16}$$

$$\underline{2 \quad 2}$$

$$x = 8$$

$$11x - 10 = 24$$

$$\underline{-10 \quad -10}$$

$$\underline{11x = 14}$$

$$\underline{11 \quad 11}$$

$$x = 1 \frac{3}{11}$$

Solving Algebraic Expressions

Solve $3(x + 2) = 4y - 5x$, if $x = 2$ and y

$= 3$

$$3(2+2) + 4(3) - 5(2)$$

$$12 + 12 - 10$$

$$= 14$$