Percent(<1% or > 100%) of a Number – Meet the Skill

Name _____ Date _____

Calculate: 120% of 1200 = ___

Solution:

For calculating percent of a number first we have to change percent into decimal.

Then, where ever we see the word “of” in the word problem, that mean we have to multiply above obtained decimal number by the given number.

Change 120% into decimal number by dividing the number by 100.

$$= \frac{120}{100}$$

$$= 1.20$$

Multiply the number by percentage fraction

$$=>1200 \times 1.20$$

$$= 1,440$$

Answer: 1,440

Percent(<1% or > 100%) of a Number – Try the Skill

Name _____ Date _____

Calculate: _____% of 100 = 50

Solution:

Let the percent number be Y.

For calculating the percent of a number, first we have to change “of” to multiply.

$$Y\% \times 100 = 50$$

Divide the number by 100 and remove the percent sign.

$$\frac{Y}{100} \text{ X } 100 = 50$$

Now take that result to Right-hand-side (RHS) and divide the RHS number with that.

Simplify the expression.

$$Y = 50 \text{ X } \frac{100}{100}$$

$$Y = 50$$

Answer: 50

Practice problems

1	_____% of 150 = 105	2	_____% of 50 = 30

Percent(<1% or > 100%) of a Number – Practice the Skill

Name _____ Date _____

Complete the following.

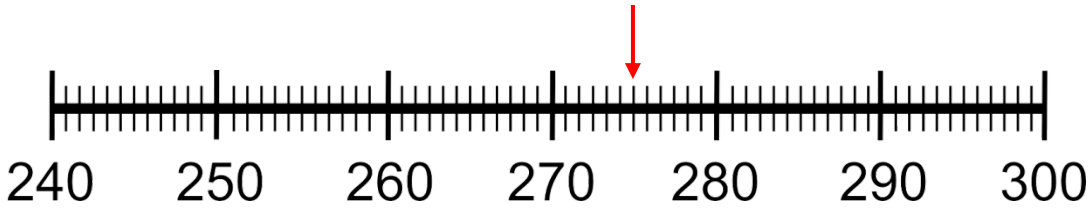
1	0.8% of 100 = _____	2	_____% of 15 = 10
3	5.5% of 10 = _____	4	15% of _____ = 18
5	300% of 38 = _____	6	_____% of 6 = 1.5
7	2.5% of _____ = 0.125	8	120% of _____ = 702
9	0.6% of 98 = _____	10	_____% of 20 = 15

Rounding and Estimating – Meet the Skill

Name _____ Date _____

Round the number **276** to the nearest whole ten. The number line can help.

First locate the number 276 on the number line. The red arrow shows the position of the number. Here, we have to round off 276 to the nearest whole ten. Look just to the right to it and if that digit is greater than or equal to 5, add one to the rounding digit and change all digits to the right of the rounding digit to zero.



So, rounding 276 to nearest tens, it becomes 280.

Rounding and Estimating – Practice the Skill

Name _____ Date _____

Round these numbers to the nearest ten.

1	84	≈	_____	2	52	≈	_____
3	64	≈	_____	4	68	≈	_____
5	37	≈	_____	6	49	≈	_____
7	93	≈	_____	8	51	≈	_____
9	28	≈	_____	10	36	≈	_____

Decimal Place Value – Meet the Skill

Name _____ Date _____

Write as decimals.

8 and 865 hundred-thousandths

A decimal value is a numeric string of one or more digits that have one decimal anywhere in the value.

The above figure shows the place of any digit in a number with their position.

In the above problem the number 8 represents the units place.

To find place for 865 at hundred-thousandths position, we will divide the number by hundred- thousand.

$$\frac{865}{\text{hundred- thousandths}}$$

$$\frac{865}{100{,}000}$$

Place a point by counting the number of zeros in denominator. Here place a decimal at fifth place from left.

0.00865

So the complete decimal number is 8.00865

Answer: 8.00865

Decimal Place Value – Try the Skill

Name _____ Date _____

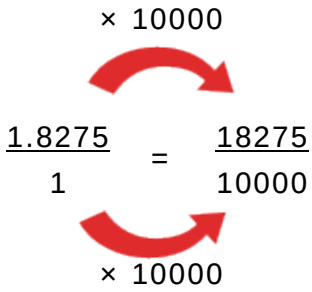
Write as fractions.

1.8275

1. Write down the decimal number divided by 1.

   1.8275/1

2. Multiply both top and bottom by 10000 (because there were 4 digits after the decimal place):



We get $\frac{18275}{10000}$ as a fraction

Answer: $\frac{18275}{10000}$

Practice Problems.

1	9.0326	2	0.0000265

Decimal Place Value – Practice the Skill

Name _____ Date _____

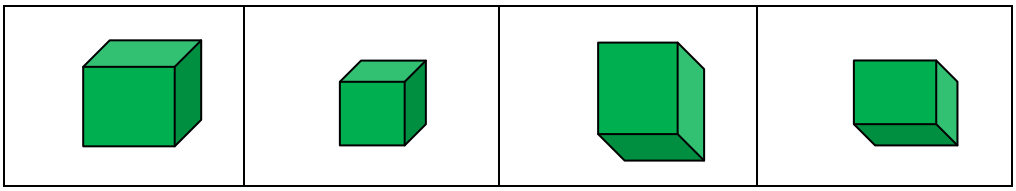
Write as decimals.

1	65 millionths	2	5 and 86 hundredths
3	45 tenths	4	812 hundred-millionths
5	Ninety five thousandths	6	913 parts per million
7	75 and 8 millionths	8	7 and 56 ten thousandths
9	962 hundred-thousandths	10	11 thousandths

Congruency – Try the Skill

Name _____ Date _____

Circle the figure that is congruent to the first figure.



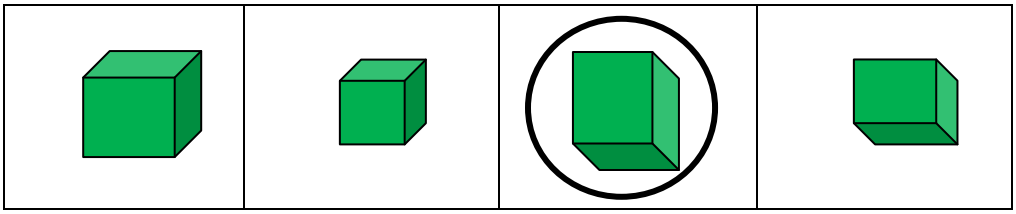
Congruent means the same shape and the same size.

Two congruent shapes may be turned differently or colored differently.

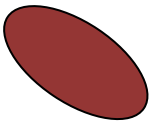
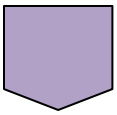
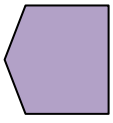
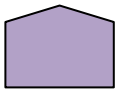
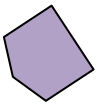
In above problem the 2nd shape is congruent to the first figure.

It has the same size and the shape to the given figure.

Answer:



Practice Problems

1				
2				

Congruency – Practice the Skill

Name _____ Date _____

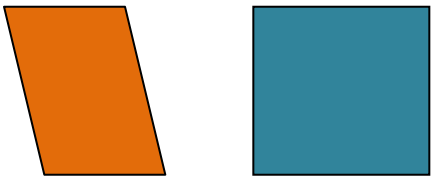
The two figures are:

1		____ congruent ____ similar and not congruent
2		____ congruent and similar ____ similar and not congruent
3		____ congruent and similar ____ similar and not congruent
4		____ similar and congruent ____ similar and not congruent
5		____ congruent and similar ____ similar and not congruent
6		____ congruent ____ similar
7		____ similar and not congruent ____ similar and congruent
8		____ congruent ____ similar and not congruent
9		____ congruent ____ similar
10		____ congruent and similar ____ similar

Congruent and Similar – Try the Skill

Name _____ Date _____

How are the figures below are related?



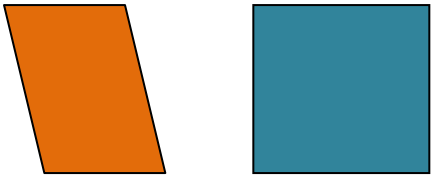
Congruent ☐

Similar but not congruent ☐

Neither similar nor congruent ☐

The pair of shapes given are not of the same shape or size.

Therefore, the two figures are neither similar nor congruent only.

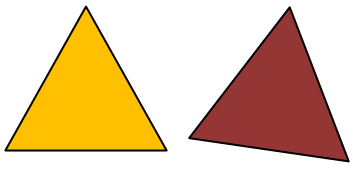
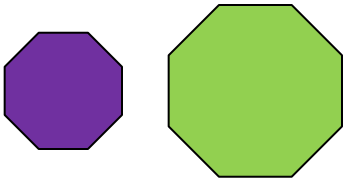


Congruent ☐

Similar but not congruent ☐

Neither similar nor congruent ☑

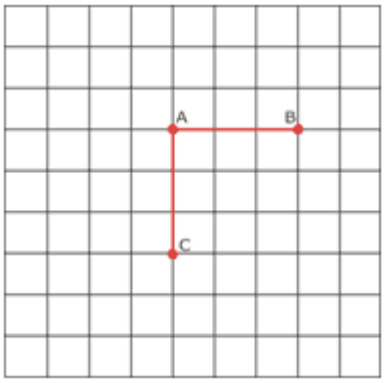
Practice Problems

1		Congruent ☐ Similar but not congruent ☐ Neither similar nor congruent ☐
2		Congruent ☐ Similar but not congruent ☐ Neither similar nor congruent ☐

Congruent Lines and Angles – Try the Skill

Name _____ Date _____

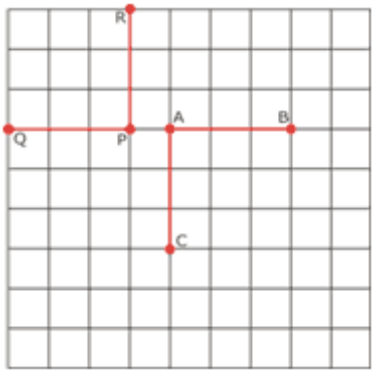
Draw an angle that is congruent to the angle given below in the picture. Place it anywhere in the picture.



Two angles are congruent if they have the same size. In the figure given above, we can see a right angle, it measures 90 degrees.

Now, we can draw an angle anywhere on the grid but it should have length and width of 3 grid squares only. In this way, we can draw various angles congruent to the given angle.

Answer:



(Note: Your answer may vary from the given answer).

Practice Problems

1	Draw an angle that is congruent to the angle given above in the picture.	2	Draw an angle that is congruent to the angle given above in the picture.

Add and Subtract Integers – Try the Skill

Name _____ Date _____

Write expression of the given sentence.

A lift started from 12^{th} floor. It travelled 5 floors downward. Now it is at ____ floor.

Initial position of the lift = 12^{th} floor

Travelled floors = 5 floor downward

Or

= (- 5) Floor upward

So add the displacement of the lift and make the expression

$$12 + (- 5)$$

Solve the expression : $12 + (- 5) = 7$

Answer: $12 + (- 5) = 7^{th}$

Practice Problems.

1	A plane was at 250 feet above the sea, it covers 150 feet up in the sky. Now it is at ____ feet	2	The price of a share of stock is $5663; there was a fall of $92. Now the price is _____.

Approximations – Try the Skill

Name _____ Date _____

Approximate the measurement of 86.36 meters to the nearest

a) Whole unit
b) Tenth (1/10) of a unit

Solution:

To approximate 86.36 meters to the whole unit of meter, we have to round it off, remove the decimal point and make it an integer.

a) Whole unit of 86.36 meters

To round the number 86.36 to nearest whole unit, we have to drop all the decimal digits after the whole number and round it.

So, 86.4 becomes 86

b) Tenth (1/10) of 86.36 meters

To find one tenth (1/10) of any unit we will approximate the answer up to one decimal place.

Here 86.36 become 86.4

Answer: 86 meter, 86.4 meter

Practice Problems.

1	72.39 meter	2	565.26 kilometers

Convert U.S. and Metric Units – Try the Skill

Name _____ Date _____

Mike's geometry box weighs 5 ounces. How much does it weigh in grams? Round the answer to the nearest gram.

Above problem involves conversion between different weights. In this case, from ounces to grams

It should be remembered that

1 ounce = 28.35 grams

This implies 5 ounces = 5 X 28.35 grams

= 141.75 grams

≈ 142 grams

Answer: 142 grams approx

Practice problems

1	An apple weighs 150 grams. How much does it weigh in ounces?
2	A red colored paper is 8 inches long and the green one is 25 cm long. Which is longer and by how much (in cm)?

Convert U.S. and Metric Units – Show the Skill

Name _____ Date _____

1	Jerry weighs 100 lb and Kip weighs 54 kg. Who is lighter and by how much in lb?
2	A certain pole is 3 m tall and Theresa is just about half as tall as that pole. How tall is Theresa in feet?
3	A bucket has a capacity of 2.5 gallons. What is its capacity in liters?
4	A LCD monitor is 61 cm in length. What will be its length in inches?
5	Benny says big foot is 180 inches tall, Sara says big foot is 400 cm tall. Who is truthful assuming that big foot is 13 feet tall?
6	Hardy's dad is late so he's driving at the speed of 140 km/hr. If the speed limit is 55 miles/hr, how much faster is Hardy's dad driving in miles?
7	A soft drink bottle is 2 L. How much is its capacity in ounces?
8	To stop the ice cream truck Kane had to run 13 yards. How much he ran in meters?