Acceleration problems worksheet and answers key pdf download

Heat

1. Complete the descriptions of the types of heat transfer using the words in the box. You can use the words more than once!

solids	liquids	sun	move	separate		
dense	rise	energy	collide	sink	gases	space
rises	current	contact	fire	temperature		

Conduction

This is the way heat transfers through _____. When the particles near the heat source heat up, they get more _____and start to _____ more. They _____ with the other particles and pass energy to them. Then these particles start to move more and _____ with the other particles … This process continues until all the particles have the same energy and the whole object is the same _____.

Convection

This is the way heat transfers through _____ and _____. The particles near the heat source heat up and start to move more. They _____ more from the other particles, so this part becomes less _____. Because it is less dense, it _____. Cold particles move to fill the _____ that is created. Then they heat up and rise too. This produces a circular movement. The particles heat up and _____, cool down and _____, heat up and _____, cool down and _____. This is called a convection _____.

Radiation

This is how heat transfers without physical _____. It is how the _____'s energy reaches us on Earth or how we feel the heat of a _____ without touching it for example.

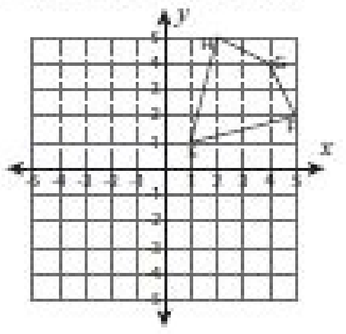
Name : _____ Score : _____

Write the New Coordinates

Sheet 1

Graph the image of each figure after rotating it about the origin. Also write the coordinates of the image.

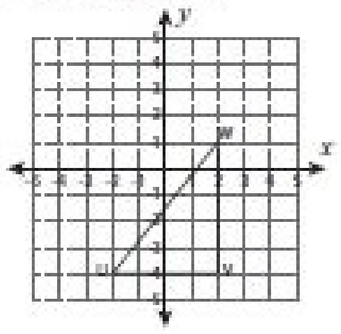
1) 90^0 counterclockwise rotation



E' : _____, F' : _____

G' : _____, H' : _____

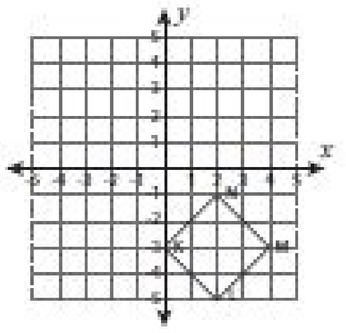
2) 90^0 clockwise rotation



U' : _____, V' : _____

W' : _____

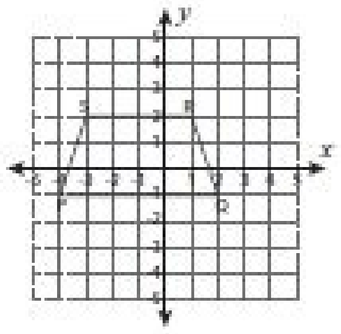
3) 180^0 rotation



K' : _____, L' : _____

M' : _____, N' : _____

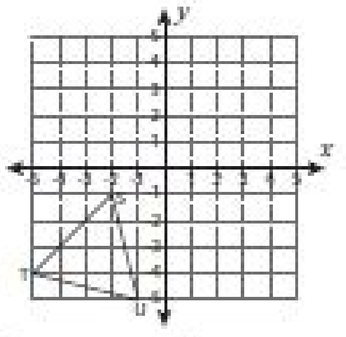
4) 90^0 counterclockwise rotation



P' : _____, Q' : _____

R' : _____, S' : _____

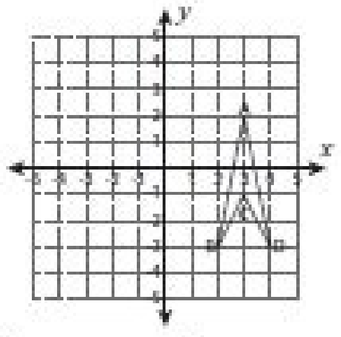
5) 90^0 clockwise rotation



S' : _____, T' : _____

U' : _____

6) 180^0 rotation



A' : _____, B' : _____

C' : _____, D' : _____

Stoichiometry Practice Worksheet

Solve the following stoichiometry grams-grams problems:

1) Using the following equation:

$$2\ NaOH + H_2SO_4 \rightarrow 2\ H_2O + Na_2SO_4$$

How many grams of sodium sulfate will be formed if you start with 200.0 grams of sodium hydroxide and you have an excess of sulfuric acid?

2) Using the following equation:

$$Pb(SO_4)_2 + 4\ LiNO_3 \rightarrow Pb(NO_3)_4 + 2\ Li_2SO_4$$

How many grams of lithium nitrate will be needed to make 250.0 grams of lithium sulfate, assuming that you have an adequate amount of lead (IV) sulfate to do the reaction?

2) Using the following equation:

$$Pb(SO_4)_2 + 4\ LiNO_3 \rightarrow Pb(NO_3)_4 + 2\ Li_2SO_4$$

How many grams of lithium nitrate will be needed to make 250.0 grams of lithium sulfate, assuming that you have an adequate amount of lead (IV) sulfate to do the reaction?

Write an algebraic expression for each phrase.

1. a number g added to sixty-three _____
2. the quotient of seven and a number x _____
3. ten less than a number v _____
4. the difference between thirteen and a number k _____
5. a number q increased by seventy-two _____
6. the total of eleven and a number m _____
7. ninety-seven subtracted from a number r _____
8. the product of a number d and sixty-one _____
9. the sum of thirty-nine and a number f _____
10. twenty-three added to a number j _____
11. twelve divided by a number c _____
12. a number y multiplied by eighty-five _____
13. a number w decreased by fifty-eight _____
14. a number b minus fifty-eight _____
15. forty-six more than a number z _____
16. a number h divided by thirty-one _____
17. the sum of a number n and forty-nine _____
18. the quotient of a number s and forty-two _____
19. the product of forty and a number t _____
20. a number c added to twenty-three _____

Metric Mania Name_____

Conversion Challenge

Write the correct abbreviation for each metric unit.

1) Kilogram _____ 4) Milliliter _____ 7) Kilometer _____
2) Meter _____ 5) Millimeter _____ 8) Centimeter _____
3) Gram _____ 6) Liter _____ 9) Milligram _____

Try these conversions, using the ladder method.

1) 2000 mg = _____ g 6) 5 L = _____ mL 11) 16 cm = _____ mm
2) 104 km = _____ m 7) 198 g = _____ kg 12) 2500 m = _____ km
3) 480 cm = _____ m 8) 75 mL = _____ L 13) 65 g = _____ mg
4) 5.6 kg = _____ g 9) 50 cm = _____ m 14) 6.3 cm = _____ mm
5) 8 mm = _____ cm 10) 5.6 m = _____ cm 15) 120 mg = _____ g

Compare using <, >, or =.

16) 63 cm ◯ 6 m 17) 5 g ◯ 508 mg 18) 1,500 mL ◯ 1.5 L