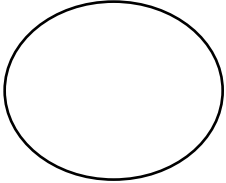**Name**_____   **Date**_____   **Period**_____

Physical Science - Mixed Review Word Problems
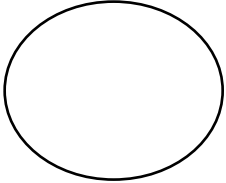
Directions: Read each word problem.
- **Step 1:** Write down the correct formula that you would use to solve the problem.
- **Step 2:** Solve the problems on page 2. Show your work (Given, Equation, Solve). **Highlight** your answer or **circle** the answer if you are uploading written work.
- **Use circle diagrams to help you!!!!**

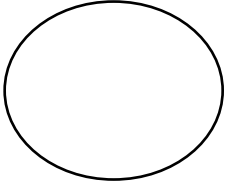| Formula	Word Problem
	1. Calculate the force on an object that has a mass of 12 kg and an acceleration of 4 m/s^2.
	2. A loaf of bread has a volume of 2270 cm^3 and a mass of 454 g. What is the density of the bread?
	3. During a race, a sprinter increases speed from 5.0 m/s to 7.5 m/s over a period of 1.25 s. What is the sprinter's average acceleration during this period?
	4. A sprinter runs the 100-meter race in 10 seconds. What is the sprinter's speed?
	5. Your family is moving to a new apartment. While lifting a box 1.5m straight up to put it on a truck, you exert an upward force of 200 N. How much work did you do?
	6. A car travels 500 miles east in 10 hours. What is the speed of the car?
	7. A 3,000-N force acts on a 200-kg object. The acceleration of the object is___.
	8. Given a force of 88 N and an acceleration of 4 m/s^2, what is the mass?
	9. A block of wood has a density of 0.6 g/cm^3 and a volume of 1.2 cm^3. What is the mass of the block of wood? Be careful!
	10. Calculate the mechanical advantage of a ramp that is 6.0 m long and 1.5 m high.
	11. Sally drove at a speed of 50 km /hr. south for 2 hours. How far did she travel?
	12. What is the weight of an object that has a mass of 25 kg?
	13. A young man exerted a force of 9,000 N on a stalled car but was unable to move it. How much work was done?
	14. What is the acceleration of a 10 kg mass pushed by a 5 N force?
	15. A crane uses an average force of 5200 N to lift a girder 25 m. How much work does the crane do on the girder?
	16. A person is traveling at 20 m/s in a car when the car hits a tree. The person comes to a complete stop in 0.4 seconds. Calculate the acceleration.
	17. A crane uses an average force of 5200 N to lift a girder 25 m, but the girder **does NOT** move. How much work does the crane do on the girder?
	18. What is the mass of an object that weighs 58 N?
	19. Find the speed of a long-distance runner who runs 30 miles in 6 hours.
	20. A plane stops after traveling 125 mph in 0.5 hours. What is the plane's acceleration?

1. Calculate the force on an object that has a mass of 12 kg and an acceleration of 4 m/s².

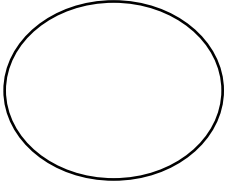| Given:	Formula:	
	Work:	

2. During a race, a sprinter increases speed from 5.0 m/s to 7.5 m/s over a period of 1.25 s. What is the sprinter's average acceleration during this period?

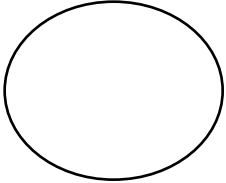| Given:	Formula:	
	Work:	

3. Your family is moving to a new apartment. While lifting a box 1.5m straight up to put it on a truck, you exert an upward force of 200 N. How much work did you do?
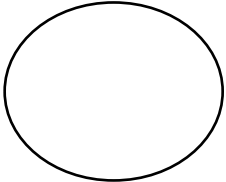
Given:	Formula:	
	Work:	

4. A block of wood has a density of 0.6 g/cm³ and a volume of 1.2 cm³. What is the mass of the block of wood? *Be careful!*

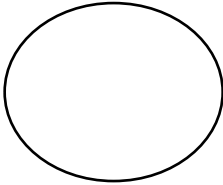| Given:	Formula:	
	Work:	

5. Calculate the mechanical advantage of a ramp that is 6.0 m long and 1.5 m high.

Given:	Formula:	
	Work:	

6. What is the weight of an object that has a mass of 25 kg?

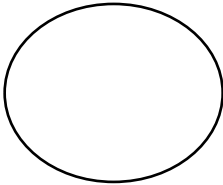| Given:	Formula:	
	Work:	

7. A young man exerted a force of 9,000 N on a stalled car but was unable to move it. How much work was done?

Given:	Formula:
	Work:

8. A cheetah can run briefly with a speed of 31 m/s. Suppose a cheetah with a mass of 47 kg runs at this speed. What is the cheetah's kinetic energy?

Given:	Formula:
	Work:

9. Find the speed of a long-distance runner who runs 30 miles in 6 hours.

Given:	Formula:
	Work: