### Lesson 20 Practice Problems

1. Match each situation to one of the equations.
	1. A whale was diving at a rate of 2 meters per second. How long will it take for the whale to get from the surface of the ocean to an elevation of -12 meters at that rate?
	2. A swimmer dove below the surface of the ocean. After 2 minutes, she was 12 meters below the surface. At what rate was she diving?
	3. The temperature was -12 degrees Celsius and rose to 2 degrees Celsius. What was the change in temperature?
	4. The temperature was 2 degrees Celsius and fell to -12 degrees Celsius. What was the change in temperature?
	5. $-12+x=2$
	6. $2+x=-12$
	7. $-2x=-12$
	8. $2x=-12$
2. Starting at noon, the temperature dropped steadily at a rate of 0.8 degrees Celsius every hour.
* For each of these situations, write and solve an equation and describe what your variable represents.
	1. How many hours did it take for the temperature to decrease by 4.4 degrees Celsius?
	2. If the temperature after the 4.4 degree drop was -2.5 degrees Celsius, what was the temperature at noon?
1. Find the value of each expression.
	1. $12+-10$
	2. $-5−6$
	3. $-42+17$
	4. $35−-8$
	5. $-4\frac{1}{2}+3$
* (From Unit 7, Lesson 10.)
1. A shopper bought a watermelon, a pack of napkins, and some paper plates. In his state, there is no tax on food. The tax rate on non-food items is 5%. The total for the three items he bought was $8.25 before tax, and he paid $0.19 in tax. How much did the watermelon cost?
* (From Unit 6, Lesson 7.)
1. A 50-centimeter piece of wire is bent into a circle. What is the area of this circle?
* (From Unit 5, Lesson 15.)



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