Lesson 6 Practice Problems

1. Draw a diagram to represent each of these situations. Then write an addition expression that represents the final temperature.

   a. The temperature was $80°F$ and then fell $20°F$.

   b. The temperature was $-13°F$ and then rose $9°F$.

   c. The temperature was $-5°F$ and then fell $8°F$.

2.   a. The temperature is $-2°C$. If the temperature rises by $15°C$, what is the new temperature?

   b. At midnight the temperature is $-6°C$. At midday the temperature is $9°C$. By how much did the temperature rise?

3. Complete each statement with a number that makes the statement true.

   a. _____ $< 7°C$

   b. _____ $< -3°C$

   c. $-0.8°C <$ _____ $< -0.1°C$

   d. _____ $> -2°C$

   (From Unit 7, Lesson 1.)

Accelerated 6 Unit 7

Lesson 6

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4. Match the statements written in English with the mathematical statements. All of these statements are true.

A. The number -15 is further away from 0 than the number -12 on the number line.

B. The number -12 is a distance of 12 units away from 0 on the number line.

C. The distance between -12 and 0 on the number line is greater than -15.

D. The numbers 12 and -12 are the same distance away from 0 on the number line.

E. The number -15 is less than the number -12.

F. The number 12 is greater than the number -12.

1. $|\text{-}12| > \text{-}15$

2. $\text{-}15 < \text{-}12$

3. $|\text{-}15| > |\text{-}12|$

4. $|\text{-}12| = 12$

5. $12 > \text{-}12$

6. $|12| = |\text{-}12|$

(From Unit 7, Lesson 5.)

5. Evaluate each expression.

○ $2^3 \cdot 3$

○ $\dfrac{4^2}{2}$

○ 3^1

○ $6^2 \div 4$

○ $2^3 - 2$

○ $10^2 + 5^2$

(From Unit 4, Lesson 13.)

6. Decide whether each table could represent a proportional relationship. If the relationship could be proportional, what would be the constant of proportionality?

a. The number of wheels on a group of buses.

number of buses	number of wheels	wheels per bus
5	30	
8	48	
10	60	
15	90	

b. The number of wheels on a train.

number of train cars	number of wheels	wheels per train car
20	184	
30	264	
40	344	
50	424	

(From Unit 5, Lesson 4.)