Name:

Date:

Day 5_ Multiplying Integers

Essential Question Is the product of two integers *positive*, *negative*, or *zero*? How can you tell?

Rules for Multiplying Integers

_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

Multiply.

1. $(-8)(-12)$ **2.** $10 \bullet (-14)$ **3.** $-21 \bullet 4$ **4.** $-15 \bullet (-8)$

Answer:____ Answer:____ Answer:____ Answer:____

5. The water in a pool evaporates at a rate of 16 gallons per week. What integer represents the change in the number of gallons of water in the pool after 24 weeks?

Answer:

Multiply.

6. $5 \bullet (-11) \bullet (-4)$ **7.** $-15(-3)(-6)$ **8.** $-9 \bullet 0 \bullet (-3)$

Answer: Answer: Answer:

9. $13 \bullet 2 \bullet (-6)$ **10.** $-16 \bullet 2 \bullet (-3)$ **11.** $-9(-9)(-9)$

Answer: Answer: Answer:

Evaluate the expression.

12. $(-12)^2$

Answer:

13. -12^2

Answer:

14. $(-7)^3$

Answer:

15. $-(-2)^3$

Answer:

16. $(-2)^3 \bullet (-3)^2$

Answer:

17. $(-11)^2 \bullet 7$

Answer:

18. $-3(2^2)(0)$

Answer:

19. $11(-3) - (-2)(7)$

Answer:

20. $-5 \bullet 8 - (-4)^3$

Answer:

21. The gym offers a discount when more than one member of the family joins. The first member $(n = 0)$ pays \$550 per year. The second member to join $(n = 1)$ gets a discount of \$75 per year. The third member $(n = 2)$ gets an additional \$75 discount. The price for the nth member is given by $550 + (-75n)$.

a. What is the price for the fourth member to join $(n = 3)$?

Answer:

b. For a large family, is it possible that a member would join for free? If so, which member would it be? Explain your reasoning.

Write your response below.

c. Other than \$0, what is the lowest amount that a member would pay to join? Which member would it be? Explain your reasoning.

Write your response below.