Name _____ Date _____

1.6 Homework

Show all of your work on a separate sheet of paper.

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

Multiply.

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

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?

Multiply.

6. $5 \cdot (-11) \cdot (-4)$
7. $-15(-3)(-6)$
8. $-9 \cdot 0 \cdot (-3)$
9. $13 \cdot 2 \cdot (-6)$
10. $-16 \cdot 2 \cdot (-3)$
11. $-9(-9)(-9)$

Evaluate the expression.

12. $(-12)^2$
13. -12^2
14. $(-7)^3$
15. $-(-2)^3$
16. $(-2)^3 \cdot (-3)^2$
17. $(-11)^2 \cdot 7$
18. $-|-3| \cdot (-6)$
19. $11(-3) - (-2)(7)$
20. $-5 \cdot 8 - (-4)^3$

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 $(n = 3)$?

    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.

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

Name:_____
Mr. Williams

Date:_____
Class:_____

I can efficiently subtract integers and other rational numbers.

CCSS: 7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational...

Lesson 5: The Distance Between Two Rational Numbers

Homework Day 2

- To find the distance between two rational numbers on a number line, you can count the number of units between the numbers.
- Using a formula, the distance between rational numbers, p and q, is $|p - q|$.
- Distance is always positive.
- Change may be positive or negative. For instance, there is a $-4°$ change when the temperature goes from $7°$ to $3°$.

13. $|-19 - 12|$

14. $|19 - (-12)|$

15. $|10 - (-43)|$

16. $|-10 - 43|$

17. $|-1 - (-16)|$

18. $|1 - 16|$

19. $|0 - (-9)|$

20. $|0 - 9|$

21. $|-14.5 - 13|$

22. $|14.5 - (-13)|$

23. Describe any patterns you see in the answers to the problems in the left- and right-hand columns. Why do you think this pattern exists?