Math Packet Grade 6 Bridge

Week 7: 5/18-5/22 Name: Period:

NO CALCULATORS ALLOWED WEEKS 7/8

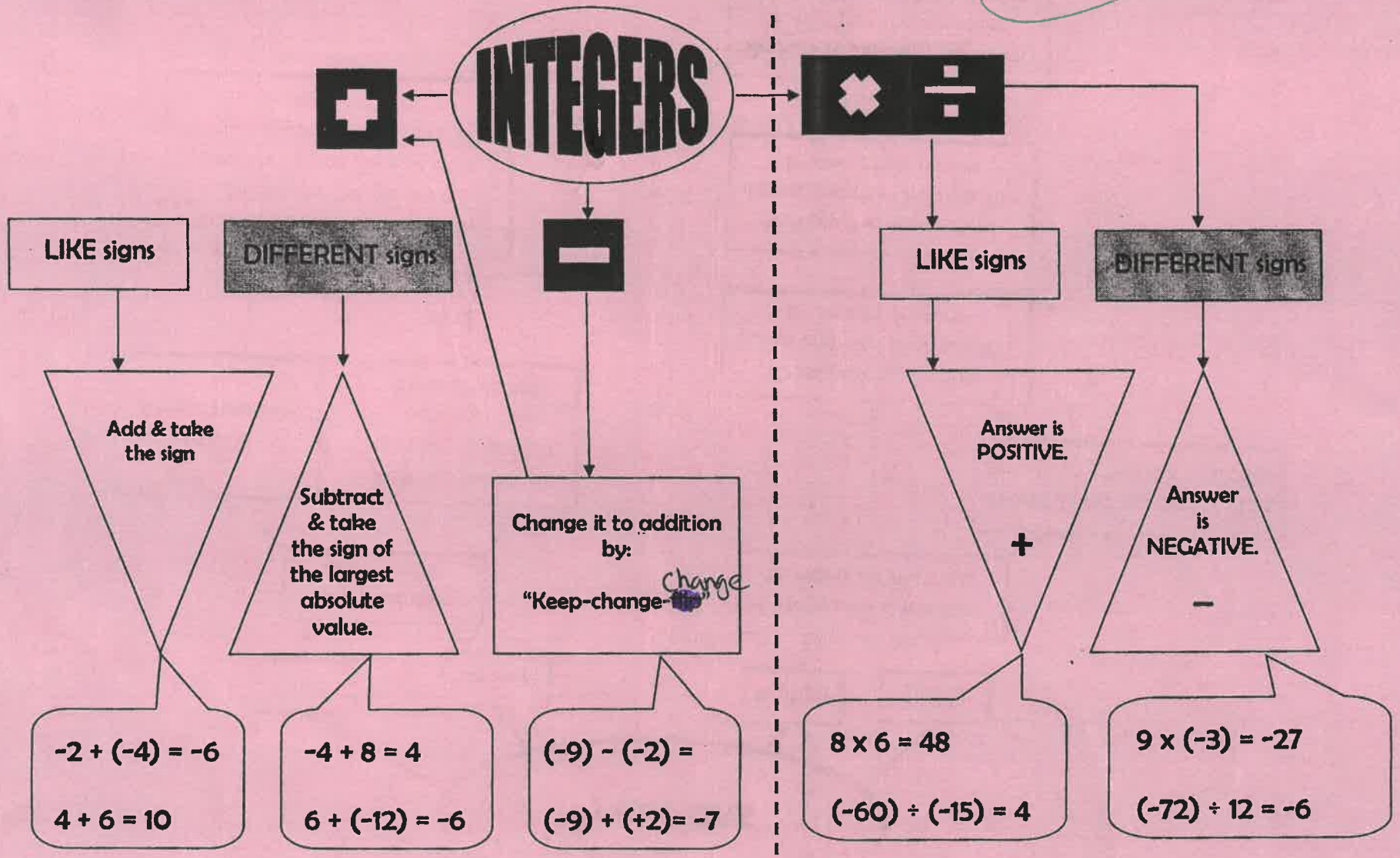
Days	Assignment
Monday - Multiplying Integers	Read p. 525-527, view video Dr. Berger p. 527* complete p. 528
Tuesday - Multiplying Integers	Complete p. 57 worksheet
Wednesday - Dividing Integers	Read p. 532 view video Dr. Berger p. 532* complete p. 534
Thursday - Dividing Integers	p. 66 worksheet
Friday - Lesson Quiz	p. 543 Go Math

*To view the Dr. Berger (Math on the Spot videos) - You can go to Class Link and click on myhrw to pull up the Go Math book and enter the page number and view the video
OR if you have a QR Reader on your phone, just scan the bar code on the Go Math page and view the video.

Week 7/8

INTEGER RULES

study guide



Multiplying Integers

The product of two integers with opposite signs is negative. The product of two integers with the same sign is positive. The product of 0 and any other integer is 0.

week 7 Mon.

EXAMPLE 1

FL 7.NS.1.2

A Multiply: $(13)(-3)$.

STEP 1 Determine the sign of the product.

13 is positive and −3 is negative. Since the numbers have opposite signs, the product will be negative.

STEP 2 Find the absolute values of the numbers and multiply them.

$|13| = 13$ $|-3| = 3$

$13 \times 3 = 39$

STEP 3 Assign the correct sign to the product.

$13(-3) = -39$ The product is −39.

B Multiply: $(-5)(-8)$.

STEP 1 Determine the sign of the product.

−5 is negative and −8 is negative. Since the numbers have the same sign, the product will be positive.

STEP 2 Find the absolute values of the numbers and multiply them.

$|-5| = 5$ $|-8| = 8$

$5 \times 8 = 40$

STEP 3 Assign the correct sign to the product.

$(-5)(-8) = 40$ The product is 40.

C Multiply: $(-10)(0)$.

$(-10)(0) = 0$ One of the factors is 0, so the product is 0.

Math Talk
Mathematical Practices

Compare the rules for finding the product of a number and zero and finding the sum of a number and 0.

YOUR TURN

Find each product.

4. $-3(5)$ _____
5. $(-10)(-2)$ _____
6. $7(-6)$ _____
7. $0(-22)$ _____
8. $(-15)(-3)$ _____
9. $8(4)$ _____

watch video!

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Read steps!

Guided Practice

week 7

Bridge

Find each product. (Explore Activity 2 and Example 1) Mon. 5/11

1. $-1(9)$ _____ **2.** $14(-2)$ _____ **3.** $(-9)(-6)$ _____

4. $(-2)(50)$ _____ **5.** $(-4)(15)$ _____ **6.** $-18(0)$ _____

7. $(-7)(-7)$ _____ **8.** $-15(9)$ _____ **9.** $(8)(-12)$ _____

10. $-3(-100)$ _____ **11.** $0(-153)$ _____ **12.** $-6(32)$ _____

13. Flora made 7 withdrawals of $75 each from her bank account. What was the overall change in her account? (Example 1)

_____

14. A football team lost 5 yards on each of 3 plays. Explain how you could use a number line to find the team's change in field position after the 3 plays. (Explore Activity 1)

_____

_____

15. The temperature dropped 2 °F every hour for 6 hours. What was the total number of degrees the temperature changed in the 6 hours? (Explore Activity 1)

_____

16. The price of one share of Acme Company declined $5 per day for 4 days in a row. How much did the price of one share change in total after the 4 days? (Explore Activity 1)

_____

17. A mountain climber climbed down a cliff 50 feet at a time. He did this 5 times in one day. What was the overall change in his elevation? (Explore Activity 1)

_____

ESSENTIAL QUESTION CHECK-IN

18. Explain the process for finding the product of two integers.

_____

_____

_____

_____

Adv.

Name _____ Date 5/12 Class _____

Tues. Bridge week 7

LESSON 9-6

Practice B

Multiplying Integers

Write the sign of each product.

1. $7 \cdot 8$ _____
2. $5 \cdot (-9)$ _____
3. $-4 \cdot 12$ _____
4. $-6 \cdot (-11)$ _____
5. $-3 \cdot 8$ _____
6. $-12 \cdot (-18)$ _____

Find each product.

7. $5 \cdot (-7)$ _____
8. $-4 \cdot 3$ _____
9. $-8 \cdot (-2)$ _____
10. $-9 \cdot (-1)$ _____
11. $5 \cdot (-6)$ _____
12. $-10 \cdot (-4)$ _____
13. $6 \cdot (-8)$ _____
14. $0 \cdot (-3)$ _____
15. $7 \cdot (-9)$ _____

Evaluate $4n$ for each value of n. Note: Multiply 4 times the value of n.

16. $n = 2$ _____
17. $n = -4$ _____
18. $n = -7$ _____
19. $n = -3$ _____
20. $n = 11$ _____
21. $n = 0$ _____

Evaluate $-3n$ for each value of n. Multiply -3 times the value of n.

22. $n = -5$ _____
23. $n = 0$ _____
24. $n = 6$ _____
25. $n = -8$ _____
26. $n = 7$ _____
27. $n = -1$ _____

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watch video

Dividing Integers

You used the relationship between multiplication and division to make conjectures about the signs of quotients of integers. You can use multiplication to understand why division by zero is not possible.

Think about the division problem below and its related multiplication problem.

$$5 \div 0 = ? \qquad 0 \times ? = 5$$

The multiplication sentence says that there is some number times 0 that equals 5. You already know that 0 times any number equals 0. This means division by 0 is not possible, so we say that division by 0 is undefined.

My Notes

EXAMPLE 1

FL 7.NS.1.2

A Divide: $24 \div (-3)$

STEP 1 Determine the sign of the quotient.

24 is positive and −3 is negative. Since the numbers have opposite signs, the quotient will be negative.

STEP 2 Divide.

$24 \div (-3) = -8$

B Divide: $-6 \div (-2)$

STEP 1 Determine the sign of the quotient.

−6 is negative and −2 is negative. Since the numbers have the same sign, the quotient will be positive.

STEP 2 Divide: $-6 \div (-2) = 3$

C Divide: $0 \div (-9)$

STEP 1 Determine the sign of the quotient.

The dividend is 0 and the divisor is not 0. So, the quotient is 0.

STEP 2 Divide: $0 \div (-9) = 0$

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YOUR TURN

Find each quotient.

2. $0 \div (-6)$ _____ **3.** $38 \div (-19)$ _____ **4.** $-13 \div (-1)$ _____

Guided Practice

Wed. Br. week 7

Find each quotient. (Example 1)

1. $\frac{-14}{2}$ _____
2. $21 \div (-3)$ _____
3. $\frac{26}{-13}$ _____
4. $0 \div (-4)$ _____
5. $\frac{-45}{-5}$ _____
6. $-30 \div (10)$ _____
7. $\frac{-11}{-1}$ _____
8. $-31 \div (-31)$ _____
9. $\frac{0}{-7}$ _____
10. $\frac{-121}{-11}$ _____
11. $84 \div (-7)$ _____
12. $\frac{500}{-25}$ _____
13. $-6 \div (0)$ _____
14. $\frac{-63}{-21}$ _____

Write a division expression for each problem. Then find the value of the expression. (Example 2)

15. Clark made four of his truck payments late and was fined four late fees. The total change to his savings from late fees was −$40. How much was one late fee?

_____

16. Jan received −22 points on her exam. She got 11 questions wrong out of 50 questions. How much was Jan penalized for each wrong answer?

_____

17. Allen's score in a video game was changed by −75 points because he missed some targets. He got −15 points for each missed target. How many targets did he miss?

_____

18. Louisa's savings change by −$9 each time she goes bowling. In all, it changed by −$99 during the summer. How many times did she go bowling in the summer?

_____

ESSENTIAL QUESTION CHECK-IN

19. How is the process of dividing integers similar to the process of multiplying integers?

_____

_____

_____

Name _____ Date _____ Class _____

week 7 Thurs. Br.

LESSON 9-7

Practice B

Dividing Integers

Write the sign of each quotient.

1. $56 \div 8$ _____
2. $-45 \div (-9)$ _____
3. $36 \div (-12)$ _____
4. $54 \div (-6)$ _____
5. $-84 \div 7$ _____
6. $-225 \div (-15)$ _____

Find each quotient.

7. $-45 \div 9$ _____
8. $15 \div (-3)$ _____
9. $-56 \div 8$ _____
10. $-10 \div (-5)$ _____
11. $28 \div (-7)$ _____
12. $-36 \div (-6)$ _____
13. $81 \div 9$ _____
14. $-72 \div 9$ _____
15. $-121 \div (-11)$ _____

Evaluate $\frac{n}{-3}$ for each value of n.

16. $n = 6$ _____
17. $n = -18$ _____
18. $n = -24$ _____
19. $n = -36$ _____
20. $n = 30$ _____
21. $n = -21$ _____

Evaluate $n \div 2$ for each value of n.

22. $n = -14$ _____
23. $n = 20$ _____
24. $n = -24$ _____
25. $n = 8$ _____
26. $n = -18$ _____
27. $n = -22$ _____

28. What two division equations can you use to check the answer to the problem $6 \cdot (-4) = -24$?

29. Why are the rules for dividing integers similar to the rules for multiplying integers?

30. What two multiplication equations can you use to check the answer to the problem $-32 \div 8 = -4$?

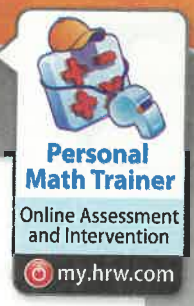
31. Name two integers whose product is -18 and whose quotient is -2.

MODULE QUIZ

Week 7

Ready to Go On?

Fri. Bridge



18.1 Multiplying Integers

Find each product.

1. $(-2)(3)$ _____

2. $(-5)(-7)$ _____

3. $(8)(-11)$ _____

4. $(-3)(2)(-2)$ _____

5. The temperature dropped 3 °C every hour for 5 hours. Write an integer that represents the change in temperature. _____

18.2 Dividing Integers

Find each quotient.

6. $\frac{-63}{7}$ _____

7. $\frac{-15}{-3}$ _____

8. $0 \div (-15)$ _____

9. $96 \div (-12)$ _____

10. An elephant at the zoo lost 24 pounds over 6 months. The elephant lost the same amount of weight each month. Write an integer that represents the change in the elephant's weight each month. _____

18.3 Applying Integer Operations

Evaluate each expression.

11. $(-4)(5) + 8$ _____

12. $(-3)(-6) - 7$ _____

13. $-27 \div 9 - 11$ _____

14. $\frac{-24}{-3} - (-2)$ _____

ESSENTIAL QUESTION

15. Write and solve a real-world problem that can be represented by the expression $(-3)(5) + 10$.

_____

_____

_____

_____