

Name: _____

Multiply Dividing Integers

Alpha 1 WS3

Guided Practice

Find each product. (Explore Activity 2 and Example 1)

- | | | |
|----------------------|---------------------|---------------------|
| 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)

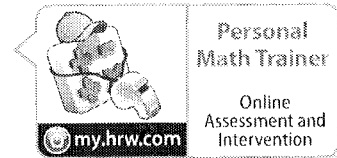


ESSENTIAL QUESTION CHECK-IN

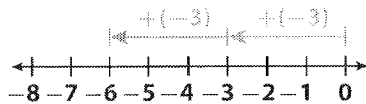
18. Explain the process for finding the product of two integers.

6.1 Independent Practice

TEKS 6.3.D



- 19. Critique Reasoning** Lisa used a number line to model $-2(3)$. Does her number line make sense? Explain why or why not.



- 20. Represent Real-World Problems** Mike got on an elevator and went down 3 floors. He meant to go to a lower level, so he stayed on the elevator and went down 3 more floors. How many floors did Mike go down altogether?

Solve. Show your work.

- 21.** When Brooke buys lunch at the cafeteria, money is withdrawn from a lunch account. The table shows amounts withdrawn in one week. By how much did the amount in Brooke's lunch account change by the end of that week?

Lunch Account			
Week 1	Lunch	Cost	Balance
			\$28
Monday	Pizza	\$4	
Tuesday	Fish Tacos	\$4	
Wednesday	Spaghetti	\$4	
Thursday	Sandwich	\$4	
Friday	Chicken	\$4	

- 22.** Adam is scuba diving. He descends 5 feet below sea level. He descends the same distance 4 more times. What is Adam's final elevation?

- 23.** The price of jeans was reduced \$6 per week for 7 weeks. By how much did the price of the jeans change over the 7 weeks?

- 24.** Casey uses some of his savings on batting practice. The cost of renting a batting cage for 1 hour is \$6. He rents a cage for 9 hours in each of two months. What is the change in Casey's savings after two months?

- 25.** Volunteers at Sam's school use some of the student council's savings for a special project. They buy 7 backpacks for \$8 each and fill each backpack with paper and pens that cost \$5. By how much did the student council's savings change because of this project?

Guided Practice

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?

6.2 Independent Practice

TEKS 6.3.D



20. Walter buys a bus pass for \$30. Every time he rides the bus, money is deducted from the value of the pass. He rode 12 times and \$24 was deducted from the value of the pass. How much does each bus ride cost? _____

21. Analyze Relationships Elisa withdrew \$20 at a time from her bank account and withdrew a total of \$140. Francis withdrew \$45 at a time from his bank account and withdrew a total of \$270. Who made the greater number of withdrawals? Justify your answer.

22. Multistep At 7 p.m. last night, the temperature was 10°F . At 7 a.m. the next morning, the temperature was -2°F .

a. By how much did the temperature change from 7 p.m. to 7 a.m.?

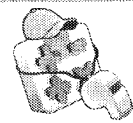
b. The temperature changed by a steady amount overnight. By how much did it change each hour?

23. Analyze Relationships Nola hiked down a trail at a steady rate for 10 minutes. Her change in elevation was -200 feet. Then she continued to hike down for another 20 minutes at a different rate. Her change in elevation for this part of the hike was -300 feet. During which portion of the hike did she walk down at a faster rate? Explain your reasoning.

24. Write a real world description to fit the expression $-50 \div 5$.

MODULE QUIZ

Ready to Go On?



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6.1 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. _____

6.2 Dividing Integers

Find each quotient.

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

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

8. $\frac{0}{-15}$ _____

9. $\frac{96}{-12}$ _____

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. _____

6.3 Applying Integer Operations

Evaluate each expression.

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

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

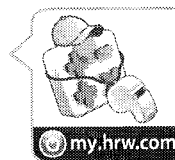
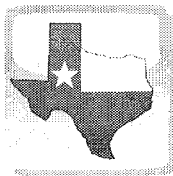
13. $\frac{-27}{9} - 11$ _____

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



ESSENTIAL QUESTION

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



Selected Response

- A diver is at an elevation of -18 feet relative to sea level. The diver descends to an undersea cave that is 4 times as far from the surface. What is the elevation of the cave?
 - (A) -72 feet
 - (B) -22 feet
 - (C) -18 feet
 - (D) -14 feet
- The football team lost 4 yards on 2 plays in a row. Which of the following could represent the change in field position?
 - (A) -12 yards
 - (B) -8 yards
 - (C) -6 yards
 - (D) -2 yards
- Clayton climbed down 50 meters. He climbed down in 10-meter intervals. In how many intervals did Clayton make his climb?
 - (A) 5
 - (B) 10
 - (C) 40
 - (D) 500
- Which expression results in a negative answer?
 - (A) a negative number divided by a negative number
 - (B) a positive number divided by a negative number
 - (C) a negative number multiplied by a negative number
 - (D) a positive number multiplied by a positive number

- Clara played a video game before she left the house to go on a walk. She started with 0 points, lost 6 points 3 times, won 4 points, and then lost 2 points. How many points did she have when she left the house to go on the walk?
 - (A) -20
 - (B) -16
 - (C) 12
 - (D) 20
- Which expression is equal to 0?
 - (A) $\frac{-24}{6} - 4$
 - (B) $\frac{-24}{-6} + 4$
 - (C) $\frac{24}{6} + 4$
 - (D) $\frac{-24}{-6} - 4$

Gridded Response

- Rochelle made three \$25 withdrawals and then wrote a check for \$100. If she started with \$200 in her account, find the total amount she has left in her account in dollars.

				.		
0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9