NAME _____ DATE _____

2-8 Dividing Integers (Pages 104–108)

The rules for dividing integers are similar to the rules for multiplying integers.

Dividing Integers with Different Signs	The quotient of two integers with different signs is negative.
Dividing Integers with the Same Signs	The quotient of two integers with the same sign is positive.

EXAMPLES

Divide.

A $72 \div (-24)$

The two integers have different signs.
Their quotient is negative.
$72 \div (-24) = -3$

B $(-65) \div (-5)$

The two integers have the same sign.
Their quotient is positive.
$(-65) \div (-5) = 13$

PRACTICE

Divide.

1. $-48 \div 6$ **2.** $\frac{35}{-7}$ **3.** $-42 \div -6$ **4.** $-81 \div 9$

5. $-126 \div (-6)$ **6.** $36 \div (-3)$ **7.** $63 \div 9$ **8.** $-72 \div -9$

9. Divide -48 by 8.

10. Find the quotient of 110 and -11.

Solve each equation.

11. $t = 72 \div -6$ **12.** $-84 \div 6 = p$ **13.** $-40 \div (-8) = f$

14. $u = -36 \div (-4)$ **15.** $128 \div 16 = a$ **16.** $s = -51 \div (-17)$

Evaluate each expression.

17. $a \div 11$ if $a = -143$ **18.** $-54 \div (-c)$ if $c = 9$ **19.** $h \div 12$ if $h = 84$

20. $n \div (-12)$ if $n = -168$ **21.** $-80 \div k$ if $k = 5$ **22.** $h \div 7$ if $h = 91$

23. Weather The temperature change at a weather station was -28¡F in just a few hours. The average hourly change was -4¡F. Over how many hours did the temperature drop occur?

24. **Standardized Test Practice** Eduardo used money from his savings account to pay back a loan. The change in his balance was $-\$144$ over the period of the loan. What was the monthly change in his balance if he paid back the loan in 3 equal monthly payments?

A $-\$432$ **B** $-\$48$ **C** $\$48$ **D** $\$432$

Answers: **1.** −8 **2.** −5 **3.** 7 **4.** −9 **5.** 21 **6.** −12 **7.** 7 **8.** 8 **9.** −6 **10.** −10 **11.** −12 **12.** −14 **13.** 5 **14.** 9 **15.** 8 **16.** 3 **17.** −13 **18.** 6 **19.** 7 **20.** 14 **21.** −16 **22.** 13 **23.** 7 hours **24.** B