8.4

Dividing Integers

MathLinks 8, pages 306-311

Key Ideas Review

Choose from the following terms to complete #1 and #2.

numerals negative number line positive sign some

- _____ integer divisions on a 1. You can model _____
- 2. You can divide two integers by dividing the _____ and applying

- a) The quotient of two integers with the same sign is ______
- **b)** The quotient of two integers with different signs is _____

Practise and Apply

- **3.** Write two division statements that **c)** $(-12) \div (-6) =$ each diagram could represent.

d) $(-15) \div (+5) =$

- b) -8 -7 -6 -5 -4 -3 -2 -1 0 5. Find each quotient.
 - - a) $(-22) \div (+2) =$
- 4. Draw a number line to find each quotient.
 - a) $(-9) \div (+3) =$

b) $(+18) \div (-6) =$

b) $(+10) \div (+5) =$

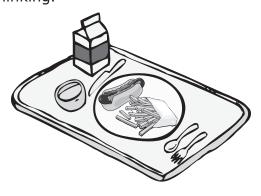
6. Calculate and check.

a)
$$(-64) \div (-4) =$$

b)
$$(-52) \div (+52) =$$

c)
$$(+100) \div (-5) =$$

- **7.** The product of two integers is +286. What is the other integer if one of them is -13? Show your thinking.
- **8.** Tasha bought the same lunch at the school cafeteria every day last week. She spent a total of \$15. How much did she spend each day? Show your thinking.



- **9.** The new game system is out next week and Juan is short \$60 to purchase one. He may borrow the rest of the money equally from his Mom, Dad, older sister, and aunt.
 - a) How much will Juan have to pay back to each person?
 - **b)** If Juan repays each person \$5 a month, how many months will it take to pay off his debt?
- **10.** Without calculating, circle the quotient with the highest value. Explain your reasoning.

$$(-1972) \div (+35)$$

$$(-1972) \div (-35)$$

$$(+1972) \div (-35)$$

- **11.** A butterfly travels 6000 m in 30 min. How far does it travel per minute?
- 12. Danika is downloading a 1200 MB movie rental. The internet connection is running at 249 kB per second. How long will it take to get the movie? Show your thinking.

Hint:
$$1 \text{ MB} = 1000 \text{ kB}$$