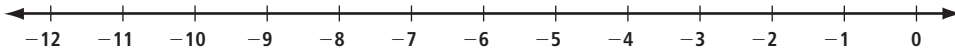


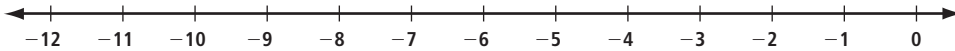
**Communicate the Ideas**

**8.4 Dividing Integers**

1. a) Draw  $(-12) \div (-2)$  on the number line.



b) Draw  $(-12) \div (+6)$  on the number line.



c) Did you draw the same diagram each time? Circle YES or NO.  
Give 1 reason for your answer.

\_\_\_\_\_

\_\_\_\_\_

2. Stefani said that the quotients of  $(-8) \div (-4)$  and  $(+8) \div (+4)$  must be the same.  
How does she know?

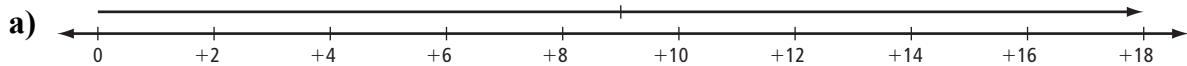
Think about the sign rule.

\_\_\_\_\_

**Check Your Understanding**

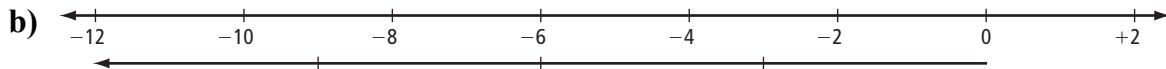
**Practise**

3. Write 2 division statements for each diagram.



$(+18) \div (\text{_____}) = \text{_____}$

$(\text{_____}) \div (\text{_____}) = \text{_____}$



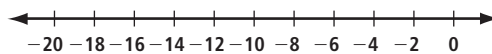
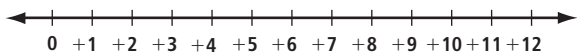
$(-12) \div (\text{_____}) = \text{_____}$

$(\text{_____}) \div (\text{_____}) = \text{_____}$

4. Find the quotient using a number line.

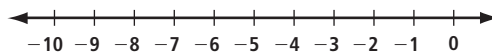
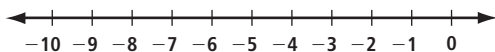
a)  $(+12) \div (+6) =$  \_\_\_\_\_

b)  $(-20) \div (-4) =$  \_\_\_\_\_

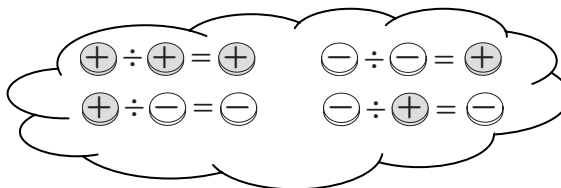


c)  $(-8) \div (+4) =$  \_\_\_\_\_

d)  $(-10) \div (-5) =$  \_\_\_\_\_



5. Calculate.



a)  $(+20) \div (+5) =$  \_\_\_\_\_

b)  $(+36) \div (-6) =$  \_\_\_\_\_

c)  $(-57) \div (+19) =$  \_\_\_\_\_

d)  $(-84) \div (-42) =$  \_\_\_\_\_

**Apply**

6. Complete each statement.

a)  $(+15) \div$  \_\_\_\_\_  $= (-3)$

b) \_\_\_\_\_  $\div (+2) = (+10)$

c)  $(-8) \div (+4) =$  \_\_\_\_\_

d)  $(-30) \div$  \_\_\_\_\_  $= (-6)$

7. Raoul borrowed \$15 per month from his mother for art supplies. At the end of his art course, he owed his mother \$60. How long was the course?



Amount borrowed per month = (\_\_\_\_\_)

Amount Raoul owes his mother = (\_\_\_\_\_)

Division statement: (\_\_\_\_\_)  $\div$  (\_\_\_\_\_) = \_\_\_\_\_

The course was \_\_\_\_\_ months long.

Check:

\_\_\_\_\_  $\times$  \_\_\_\_\_ = \_\_\_\_\_

Name: \_\_\_\_\_ Date: \_\_\_\_\_

8. a) A submarine took 16 min to dive 96 m.  
How far did it dive per minute?



Distance of dive = (—\_\_\_\_\_)

16 min = (+\_\_\_\_\_)

Division statement: \_\_\_\_\_

The submarine dove \_\_\_\_\_ m/min.

length of dive  $\div$  number of minutes

- b) The submarine took 12 min to climb 96 m.  
How far did it climb per minute?



Distance it climbed = (+\_\_\_\_\_)

12 min = (\_\_\_\_\_)

Division statement: \_\_\_\_\_

Sentence: \_\_\_\_\_

9. The school spent \$384 to buy 32 calculators.  
What was the cost of 1 calculator?



\$384 spent = (\_\_\_\_\_)

Number of calculators = (\_\_\_\_\_)

Division statement: \_\_\_\_\_

Sentence: \_\_\_\_\_

10. a) Write a word problem for  $(-80) \div (+16)$ .

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- b) Solve your problem.