

8.1

Exploring Integer Multiplication*MathLinks 8, pages 286–292***Key Ideas Review***Choose from the terms below to complete #1.*

insert

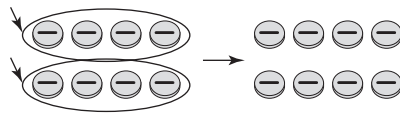
integer

negative

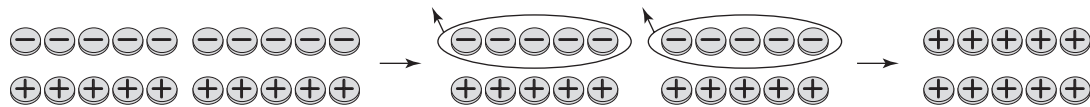
positive

zero

1. a) To model the multiplication of an integer by a _____ integer, you can _____ the appropriate integer chips. For example, $(+2) \times (-4) = -8$



- b) To model the multiplication of an integer by a _____ integer, you can remove the appropriate integer chips from _____ pairs. For example, $(-2) \times (-5) = +10$

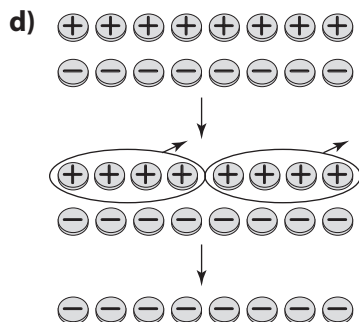
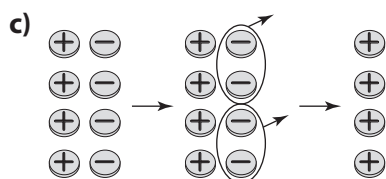
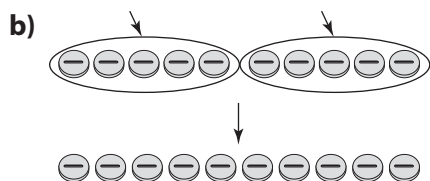
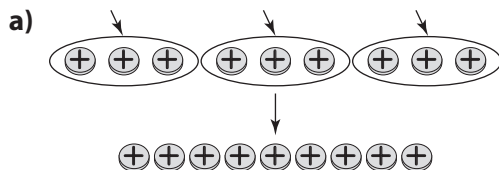
**Practise and Apply**

2. Write each repeated addition as a multiplication.
- a) $(+5) + (+5) + (+5) + (+5)$
- b) $(-7) + (-7) + (-7)$
- c) $(-3) + (-3) + (-3) + (-3) + (-3)$
- d) $(+2) + (+2) + (+2)$
3. Write each expression as a repeated addition.
- a) $(+4) \times (+1)$
- b) $(+3) \times (-6)$
- c) $(+5) \times (-2)$
- d) $(+2) \times (+9)$

Name: _____

Date: _____

4. What multiplication statement does each set of diagrams represent?



5. Complete each multiplication statement. Show your thinking.

a) $(+2) \times (+8)$

b) $(+4) \times (-3)$

c) $(-1) \times (+8)$

d) $(-3) \times (-5)$

6. Use the multiplication of two integers to represent each situation. Then, determine the product and explain its meaning.

- a) Serena mows her neighbour's lawn once a week. If she gets paid \$6.00 each time, how much does she earn over eight weeks?

- b) The temperature dropped 3 °C per hour. What was the total drop in temperature at the end of 12 hours?