NAME_____

Module 3   Integers
Lesson 4   Multiplying and Dividing Integers

Lesson Objectives

- Model multiplication and division of integers using physical objects and pictures.
- Multiply integers.
- Divide integers.

Subtopic 1   Multiplying Integers Using Counters

- The first factor tells how many _____ or _____.

- If the first factor is _____, put on counters.

- If the first factor is _____, take off counters.

- The second factor tells how many objects are in each group and whether those objects are positive or negative.

- A _____ pair contains one positive and one negative counter, which equals _____ when put together.

- A yellow _____ counter and red _____ counter form a _____ pair.

Use counters to multiply.

1 -3 × 1 _____

2 4 × -2 ____

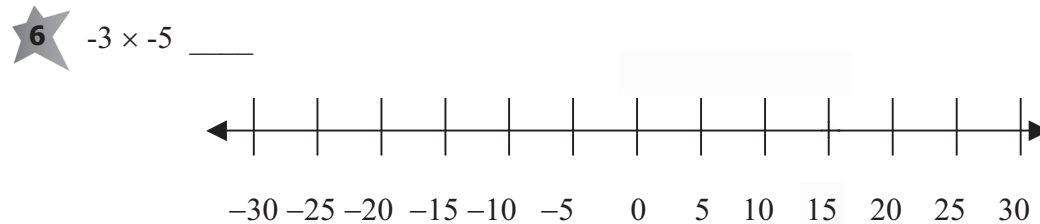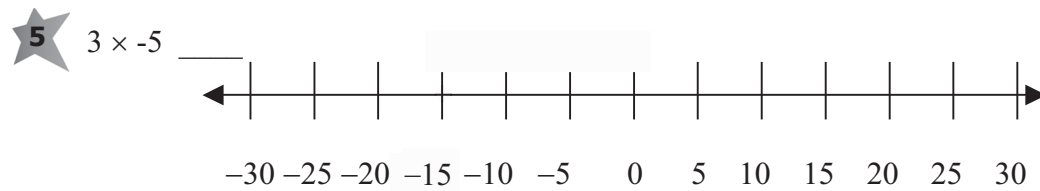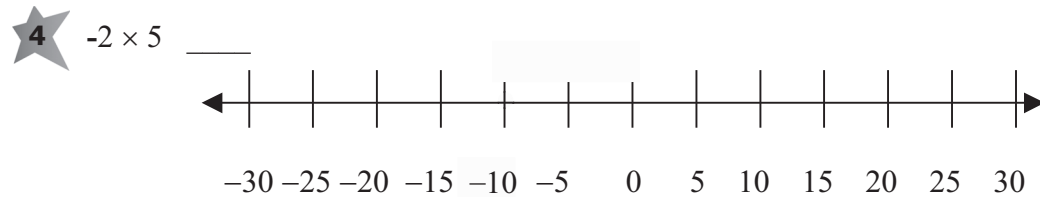**Use counters to multiply.**

⭐**3**   -3 × -4 _____

Subtopic 2   **Multiply Integers Using a Number Line**

- Start at _____.
- The first factor tells us which _____ to face and how many _____ to take.
- The second factor tells us the _____ of a step and whether to move _____ or _____.

Use a number line to multiply.

⭐**4**   -2 × 5 _____

-30 -25 -20 -15 -10 -5   0   5   10   15   20   25   30

⭐**5**   3 × -5 _____

-30 -25 -20 -15 -10 -5   0   5   10   15   20   25   30

⭐**6**   -3 × -5 _____

-30 -25 -20 -15 -10 -5   0   5   10   15   20   25   30

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Subtopic 3   **Multiplying and Dividing Integers Using Rules**

- If the factors have _____ sign, the product is positive.
  positive × _____ = positive
  negative × negative = _____
- If the factors have _____ signs, the product is negative.
  positive × negative = _____
  _____ × positive = negative

Division is the _____ operation of multiplication.

- If you divide integers with the _____ sign, the quotient is positive.
  positive ÷ positive = _____
  _____ ÷ negative = positive
- If you divide integers with _____ signs, the quotient is negative.
  positive ÷ _____ = negative
  negative ÷ positive = _____

Multiply or divide.

7 -72 ÷ 9 ____

8 25 × -4 ____

9 -35 ÷ -7 ____

10 -6 × -8 ____