Name _____ Date _____

INTEGERS WITH COUNTERS · LESSON 5

# Subtracting: Adding Zero Pairs

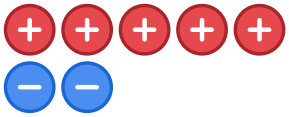
You already know: 5 − 2 means taking 2 red counters away from 5 red counters. 3 red counters are left, so 5 − 2 = 3.

Example

**3 − 5 = ?**



1 Start with 3: three red counters.



2 We need to remove 5 red counters but have only 3. Add 2 zero pairs: the value is still 3.



3 Remove 5 red counters. 2 blue counters are left.

**3 − 5 = −2**

**1** Draw counters. If there are not enough counters to remove, add zero pairs. Cross out the counters you remove and work it out.

2 − 6 = ☐

4 − 4 = ☐

1 − 5 = ☐

3 − 7 = ☐

5 − 8 = ☐

6 − 9 = ☐

**2** How many zero pairs do you need to add?

| DIFFERENCE | ZERO PAIRS | DIFFERENCE IS |
|---|---|---|
| **2 – 9** | | |
| **4 – 10** | | |
| **6 – 6** | | |
| **1 – 4** | | |
| **0 – 3** | | |

**3** Subtracting zero. Work these out.

**a)** 7 – 0 = _____ **b)** 0 – 0 = _____ **c)** –4 – 0 = _____ **d)** –9 – 0 = _____

**4** Fill in the Difference column and write your own example for each row.

| STEP | DESCRIPTION | MINUEND | SUBTRAHEND | DIFFERENCE | MY EXAMPLE |
|---|---|---|---|---|---|
| 1. | **Subtracting positive integers** | + | + | | |
| | | + | + | | |
| | | + | + | | |
| 2. | **Subtracting zero from an integer** | + | 0 | | |
| | | 0 | 0 | | |
| | | – | 0 | | |

**5** Work these out without drawing.

**a)** 8 – 15 = _____ **b)** 3 – 10 = _____ **c)** 12 – 12 = _____

**d)** 20 – 31 = _____ **e)** 7 – 25 = _____ **f)** 40 – 18 = _____

**Remember**

When there are not enough counters to remove, we add _____. This _____ the value.

If we subtract zero, the number _____.