Worksheet B

Count On and Back Across 0 Activity Book p.26
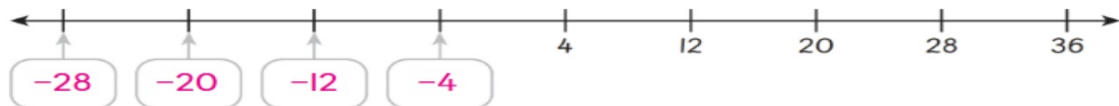
Level 1 Level 2 Level 3

> If you are not sure, you can refer to Student's Book pages 28 and 29.
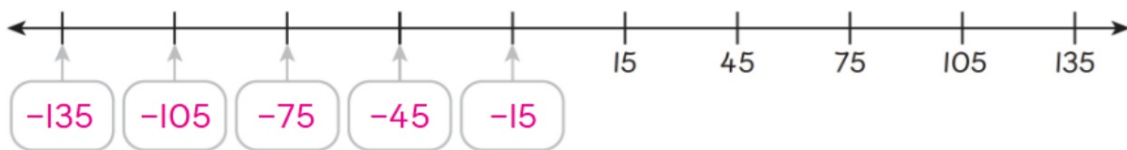
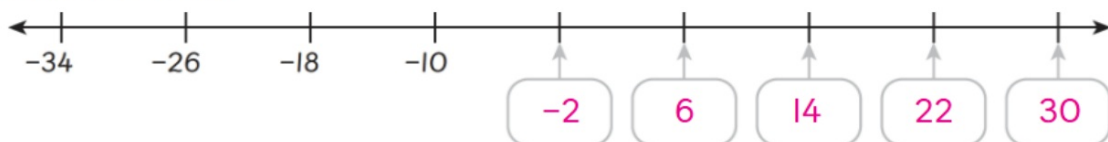**I** What are the missing numbers?

a Count back in 8s.

| | | | | 4 | 12 | 20 | 28 | 36 |

−28   −20   −12   −4

b Count back in 30s.

| | | | | | 15 | 45 | 75 | 105 | 135 |

−135   −105   −75   −45   −15

c Look at **a** and **b**. What do you notice about these numbers?
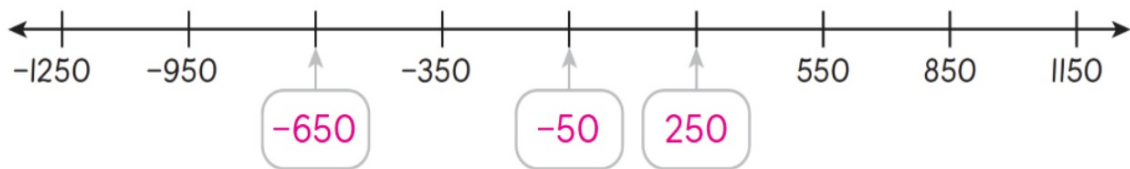Answers vary. For example: The numbers on both sides of 0 are symmetrical. They are negative and they repeat.

d Count on in 8s.

−34   −26   −18   −10

−2   6   14   22   30

e. Count on in 300s.

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←——+————+————+————+————+————+————+————+————+————→
  -1250   -950        -350                  550    850   1150
                ↑               ↑      ↑
             [-650]          [-50]  [250]
```

f. Look at **d** and **e**. What do you observe this time?
This time, the numbers are not symmetrical. The numbers do not repeat and the numbers are not spread equally across 0.

2 Izzy is thinking of a number.

Complete the following and colour your answers to find out what number she is thinking of.

a 6 more than −4 is ___2___.

b 8 less than 5 is ___−3___.

c 60 more than −45 is ___15___.

d ___−35___ is 80 less than 45.

___150___ is 400 more than −250.

−175 is ___300___ less than 125.

2	−35	−45
10	−3	−650
15	3	−225
300	150	−105

Izzy is thinking of the number ___2___.

Level 1 **Level 2** Level 3

3 Write the missing numbers in the sequences.

a   325, 275, 225, 175, __125__, __75__, __25__, __−25__, __−75__

How much do you count back each time? __50__

How do you know?

Answers vary. For example: Each number is 50 less than the previous number.

b̶   −2500, −2100, −1700, __−1300__, −900, __−500__, −100, __300__, __700__

How do you get to the next term? __Count on in 400s.__

Show an example of a negative number that would not be on each of these sequences and why.

Answers vary. For example: −100 would not be in the first sequence

because that is 25 less than −75 not 50 less. −2600 would not be in

the second sequence because it is only 100 less not 400 less.

Here are some thermometers.

A

B

C

What is the same and what is different between these thermometers?

Can you count on in ones, tens or hundreds on each of them?

All the thermometers show temperatures from −30 to 30, but with markings to represent counting on of different numbers. For Thermometer A, we count on in 5s. For Thermometer B, we count on in 10s. For Thermometer C, we can count on in 5s or in 10s.

Level 1   Level 2   **Level 3**

5. Carla counts on in 50s from −125 and observes a pattern.

> When we count on or back across 0, the numbers are always symmetrical about 0!

Carla

Is Carla's statement true?

Show an example that does not work for her statement.

Carla's statement is sometimes true, but not always true. Some sequences across 0 and are symmetrical, but not all. For example, if she counts on in 50s from −135 instead, her statement will not be true.