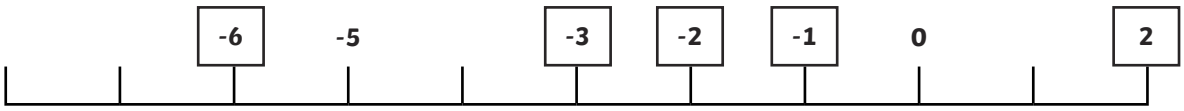
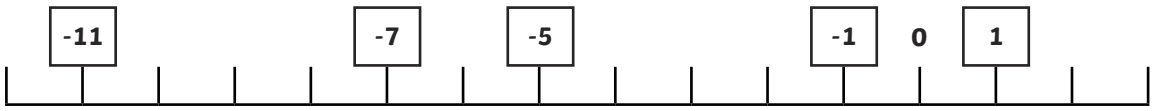
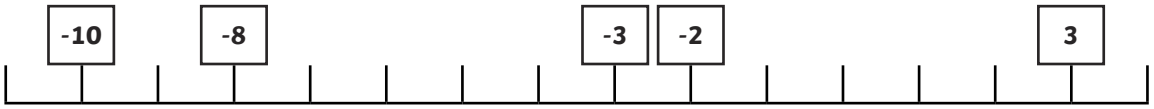
1) a)



b)

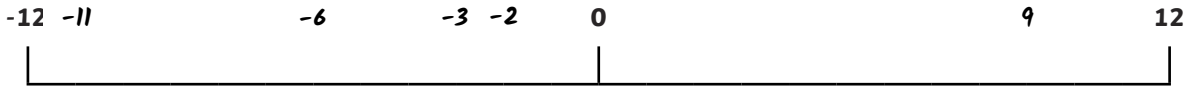


c) *Possible correct answer:*



2) Here is a number line without intervals.

a) Estimate where on the number line each number should go and then write it in the correct position.



3) *Possible answers include the following:*

I knew where to position -6 because this is halfway between 0 and -12.

I knew where to position -3 because this would be halfway between 0 and -6.

I knew where to position 9 because this would be three quarters of the way between 0 and 12.

1) *Mary is incorrect because, with negative numbers, as you move in steps further away from zero, the digits increase but, in fact, the number is getting smaller. -17 is further away from zero than -7 and is therefore colder in terms of temperature.*

2) a) *False. The difference between -5 and 1 is 6. It was 6°C warmer.*

b) *True. -19 is the lowest number and therefore represents the coldest temperature.*

c) *False. -4 is greater than -5 therefore Tuesday was 1°C warmer.*

d) *False. -5 less than 2 is -3. Wednesday needed to be 6°C colder as 6 less than 2 is -4.*

1) a) If C = -3, B = -12.

If C = -4, B = -13.

If C = -5, B = -14.

If C = -6, B = -15.

If C = -7, B = -16.

b) Where B= -12, A = -22.

Where B= -13, A = -23.

Where B= -14, A = -24.

Where B= -15, A = -25.

Where B= -16, A = -26.

2)

Finish							
-15	-19	-10	-9	-28	-33	-31	-29
-22	-16	-17	-17	-29	-25	-23	-25
-17	-8	-15	-13	-15	-25	-22	-19
-16	-17	-8	-11	-11	-16	-21	-16
-15	-9	-9	6	-1	-17	-13	-10
-2	-12	-7	8	-13	-10	-7	-8
-4	-3	-9	-5	-9	-7	-6	-6
-1	15	-6	-3	12	-5	-4	7
Start							

a) Correct route shown in red.

Correct route shown in teal.

b) The route is shown in purple, starting at -5. The rule is counting backwards in 4s.