Directed Numbers

Use a directed number to represent the given action

Example

A gain of 300 points 300

1 Up 60 m

2 Loss of $95

3 Increase of 13%

4 Deposit of $20

5 South 400 km

6 Left 15°

7 Dismantling 61 cars

8 Bank fees of $3.80

9 Down 4 storeys

10 Fall of 23°C

11 Profit of $712

12 East 650 m

13 Lost 6 nuts

14 12 s before lift-off

15 Withdrawal of $193

16 12 knot wind assist

17 West 5 paces

18 Penalise 13 strokes

19 Found 14 bolts

20 Constructing 4 buses

21 Account interest $16

22 4 min after ignition

23 Right 85 cm

24 North 33 km

25 Rise of 56%

Match the words used in column 1 with its opposite, with a line

26

Lost	•	• Penalise
North	•	• Increase
Fall	•	• Withdrawal
Decrease	•	• Found
Bank fees	•	• Profit
Up	•	• South
Deposit	•	• Down
Left	•	• Rise
Assist	•	• Interest
Loss	•	• Right

Construct sentences that describe the directed numbers, given a subject for the sentence

Example -13: Time

The space shuttle will commence lift off in 13 seconds

27 -4 000: Distance

28 -220: Money

29 40: Percentage

30 -6: Temperature

Find the new temperature when the given change occurs

31 From 6°C drops 8°C

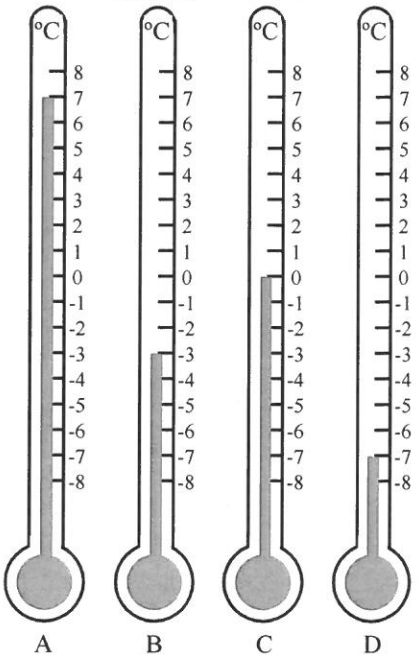
32 From 4°C drops 11°C

33 From -3°C rises 7°C

34 From -5°C rises 3°C

35 From -7°C rises 7°C

Give the temperature difference between the two thermometers, if there is a temperature drop, use '-'.



36 From A to C

37 From B to C

38 From C to D

39 From D to B

40 From A to B

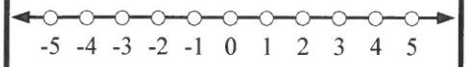
41 From D to A

42 From B to A

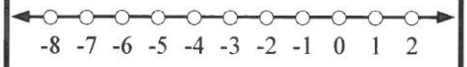
Number Line and Magnitude

Plot the numbers on the number lines provided (by filling the circles)

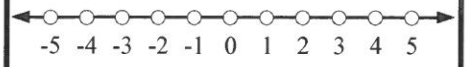
1 -3, -1, 0, 1, 3



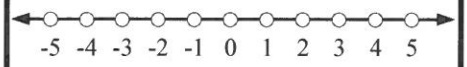
2 All numbers between 0 and -5



3 All even numbers between -4 and 4.

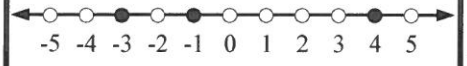


4 All odd numbers between -4 and 4.



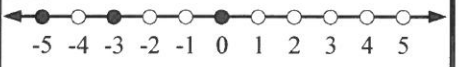
Write the numbers marked on the number lines in ascending order.

5



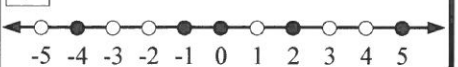
→ _____

6



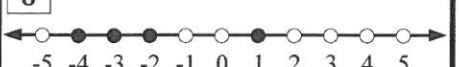
→ _____

7



→ _____

8



→ _____

Fill the box with < or >, to make these true

9	-3	☐	4	10	10	☐	5
11	16	☐	-22	12	-25	☐	-18
13	-3	☐	0	14	12	☐	-4
15	-7	☐	-23	16	15	☐	-40
17	-60	☐	-3	18	-10	☐	0
19	8	☐	6	20	3.5	☐	-7
21	-12	☐	-9	22	8	☐	-45
23	-56	☐	-9	24	0	☐	-3

Arrange these in descending order

25 6, -17, 0, 20, -100

____, ____, ____, ____, ____

26 40, -5, 14, -35, 2

____, ____, ____, ____, ____

27 -7, 0, 127, 13, -6.5

____, ____, ____, ____, ____

Arrange these in ascending order

28 -5.9, -9, 34, -30, 242

____, ____, ____, ____, ____

29 23, 107, -14, 56, -2

____, ____, ____, ____, ____

30 -20, -85, -37, 87, 4

____, ____, ____, ____, ____

Circle the largest number, a square for the smallest.

31	10	-2	15	-20
32	-3	-6	0	3
33	-4	-2	-10	0
34	-3	-6	2	-1
35	0	-1	-5	3
36	-3	-7	-10	-5
37	-34	0	-2	-5
38	-10	-5	30	-20
39	3	0	9	-10
40	-200	-50	5	199
41	3	-6	6	-3
42	-21	22	0	20

Write 'true' or 'false' for the following

43	5	<	10	_____
44	-3	>	-5	_____
45	-7	<	-6	_____
46	-5	>	0	_____
47	8	>	-10	_____
48	6	<	-16	_____
49	-1	>	-6	_____
50	2	<	-1	_____
51	0	<	-3	_____
52	3	>	0	_____
53	0	>	3	_____