

# Directed Numbers

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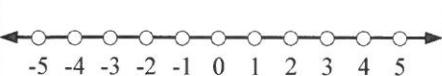
<p>Use a directed number to represent the given action</p> <p><b>Example</b></p> <p>A gain of 300 points      300</p> <p>1 Up 60 m</p> <p>2 Loss of \$95</p> <p>3 Increase of 13%</p> <p>4 Deposit of \$20</p> <p>5 South 400 km</p> <p>6 Left <math>15^\circ</math></p> <p>7 Dismantling 61 cars</p> <p>8 Bank fees of \$3.80</p> <p>9 Down 4 storeys</p> <p>10 Fall of <math>23^\circ\text{C}</math></p> <p>11 Profit of \$712</p> <p>12 East 650 m</p> <p>13 Lost 6 nuts</p> <p>14 12 s before lift-off</p> <p>15 Withdrawal of \$193</p> <p>16 12 knot wind assist</p> <p>17 West 5 paces</p> <p>18 Penalise 13 strokes</p> <p>19 Found 14 bolts</p> <p>20 Constructing 4 buses</p> <p>21 Account interest \$16</p> <p>22 4 min after ignition</p> <p>23 Right 85 cm</p> <p>24 North 33 km</p> <p>25 Rise of 56%</p>	<p>Match the words used in column 1 with its opposite, with a line</p> <p><b>26</b></p> <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Lost</td> <td style="width: 33%;">•</td> <td style="width: 33%;">• Penalise</td> </tr> <tr> <td>North</td> <td>•</td> <td>• Increase</td> </tr> <tr> <td>Fall</td> <td>•</td> <td>• Withdrawal</td> </tr> <tr> <td>Decrease</td> <td>•</td> <td>• Found</td> </tr> <tr> <td>Bank fees</td> <td>•</td> <td>• Profit</td> </tr> <tr> <td>Up</td> <td>•</td> <td>• South</td> </tr> <tr> <td>Deposit</td> <td>•</td> <td>• Down</td> </tr> <tr> <td>Left</td> <td>•</td> <td>• Rise</td> </tr> <tr> <td>Assist</td> <td>•</td> <td>• Interest</td> </tr> <tr> <td>Loss</td> <td>•</td> <td>• Right</td> </tr> </table> <p><b>Construct sentences that describe the directed numbers, given a subject for the sentence</b></p> <p><b>Example</b> -13: Time The space shuttle will commence lift off in 13 seconds</p> <p><b>27</b> -4 000: Distance</p> <p><b>28</b> -220: Money</p> <p><b>29</b> 40: Percentage</p> <p><b>30</b> -6: Temperature</p>	Lost	•	• Penalise	North	•	• Increase	Fall	•	• Withdrawal	Decrease	•	• Found	Bank fees	•	• Profit	Up	•	• South	Deposit	•	• Down	Left	•	• Rise	Assist	•	• Interest	Loss	•	• Right	<p>Find the new temperature when the given change occurs</p> <p><b>31</b> From <math>6^\circ\text{C}</math> drops <math>8^\circ\text{C}</math></p> <p><b>32</b> From <math>4^\circ\text{C}</math> drops <math>11^\circ\text{C}</math></p> <p><b>33</b> From <math>-3^\circ\text{C}</math> rises <math>7^\circ\text{C}</math></p> <p><b>34</b> From <math>-5^\circ\text{C}</math> rises <math>3^\circ\text{C}</math></p> <p><b>35</b> From <math>-7^\circ\text{C}</math> rises <math>7^\circ\text{C}</math></p> <p><b>Give the temperature difference between the two thermometers, if there is a temperature drop, use '-'.</b></p> <p><b>A</b>      <b>B</b>      <b>C</b>      <b>D</b></p> <p><b>36</b> From A to C</p> <p><b>37</b> From B to C</p> <p><b>38</b> From C to D</p> <p><b>39</b> From D to B</p> <p><b>40</b> From A to B</p> <p><b>41</b> From D to A</p> <p><b>42</b> From B to A</p>
Lost	•	• Penalise																														
North	•	• Increase																														
Fall	•	• Withdrawal																														
Decrease	•	• Found																														
Bank fees	•	• Profit																														
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Deposit	•	• Down																														
Left	•	• Rise																														
Assist	•	• Interest																														
Loss	•	• Right																														

# Number Line and Magnitude

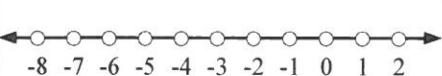
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**Plot the numbers on the number lines provided (by filling the circles)**

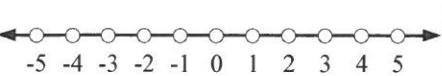
1  $-3, -1, 0, 1, 3$



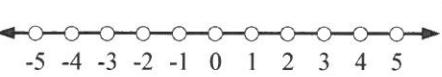
2 All numbers between 0 and -5



3 All even numbers between -4 and 4.

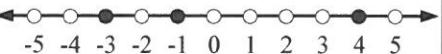


4 All odd numbers between -4 and 4.



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

5

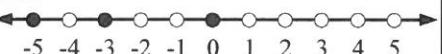


\_\_\_\_, \_\_\_\_, \_\_\_\_  
25  $6, -17, 0, 20, -100$

\_\_\_\_, \_\_\_\_  
26  $40, -5, 14, -35, 2$

\_\_\_\_, \_\_\_\_  
27  $-7, 0, 127, 13, -6.5$

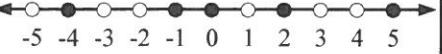
6



\_\_\_\_, \_\_\_\_  
28  $-5.9, -9, 34, -30, 242$

\_\_\_\_, \_\_\_\_  
29  $23, 107, -14, 56, -2$

7



\_\_\_\_, \_\_\_\_  
30  $-20, -85, -37, 87, 4$

\_\_\_\_, \_\_\_\_  
31  $10, -2, 15, -20$

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

9  $-3 \square 4$  10  $10 \square 5$

11  $16 \square -22$  12  $-25 \square -18$

13  $-3 \square 0$  14  $12 \square -4$

15  $-7 \square -23$  16  $15 \square -40$

17  $-60 \square -3$  18  $-10 \square 0$

19  $8 \square 6$  20  $3.5 \square -7$

21  $-12 \square -9$  22  $8 \square -45$

23  $-56 \square -9$  24  $0 \square -3$

**Arrange these in descending order**

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

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

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

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  $0 > 3$  \_\_\_\_\_