



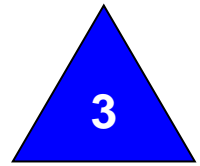
**Royal Greenwich**

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Trust School

# Maths Intervention Booklet

# Whole Number



## Ordering

N1A. Order the following sets of whole numbers from smallest to largest:

- 1 6 19 3
- 2 1 17 11
- 3 13 18 7 9
- 4 16 20 12 14 11
- 5 11 8 19 4 7 17
- 6 12 86 58
- 7 34 33 45
- 8 11 94 7 68
- 9 34 88 59 19 63
- 10 24 32 16 23 49 29
- 11 829 10 851
- 12 469 237 56
- 13 448 976 111 807
- 14 336 180 346 562 71
- 15 21 802 310 200 656 289

N1B. Order the following sets of whole numbers from largest to smallest:

- 1 4 3 7
- 2 4 20 11 2
- 3 1 10 6 13
- 4 4 15 13 9 6
- 5 13 18 6 8 7 1
- 6 45 18 97

7 42 96 94 87

8 62 77 75 46

9 30 52 18 51 87

10 28 92 77 80 71 81

11 206 239 771

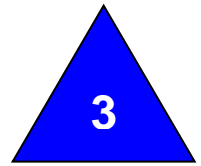
12 705 688 238 560

13 395 998 758 829

14 342 119 591 586 844

15 971 421 386 776 108 289

## Addition



N2A

- |    |           |    |           |    |           |
|----|-----------|----|-----------|----|-----------|
| 1  | $3 + 3$   | 11 | $10 + 17$ | 21 | $1 + 14$  |
| 2  | $1 + 3$   | 12 | $12 + 10$ | 22 | $18 + 11$ |
| 3  | $13 + 11$ | 13 | $10 + 5$  | 23 | $4 + 19$  |
| 4  | $6 + 3$   | 14 | $8 + 17$  | 24 | $13 + 12$ |
| 5  | $10 + 8$  | 15 | $6 + 4$   | 25 | $11 + 8$  |
| 6  | $3 + 8$   | 16 | $18 + 19$ | 26 | $20 + 18$ |
| 7  | $6 + 14$  | 17 | $6 + 17$  | 27 | $12 + 4$  |
| 8  | $19 + 3$  | 18 | $4 + 16$  | 28 | $9 + 1$   |
| 9  | $4 + 2$   | 19 | $5 + 1$   | 29 | $18 + 7$  |
| 10 | $12 + 1$  | 20 | $1 + 9$   | 30 | $3 + 7$   |

N2B

- |    |             |    |             |    |             |
|----|-------------|----|-------------|----|-------------|
| 1  | $673 + 517$ | 11 | $467 + 754$ | 21 | $947 + 76$  |
| 2  | $432 + 101$ | 12 | $499 + 984$ | 22 | $250 + 736$ |
| 3  | $68 + 543$  | 13 | $854 + 507$ | 23 | $646 + 161$ |
| 4  | $240 + 719$ | 14 | $741 + 253$ | 24 | $433 + 492$ |
| 5  | $469 + 948$ | 15 | $559 + 376$ | 25 | $350 + 275$ |
| 6  | $73 + 848$  | 16 | $825 + 593$ | 26 | $993 + 920$ |
| 7  | $384 + 947$ | 17 | $886 + 114$ | 27 | $498 + 353$ |
| 8  | $371 + 515$ | 18 | $360 + 739$ | 28 | $703 + 651$ |
| 9  | $963 + 295$ | 19 | $566 + 593$ | 29 | $594 + 165$ |
| 10 | $959 + 532$ | 20 | $329 + 851$ | 30 | $828 + 542$ |

N2C

- |   |                   |    |                   |    |                   |
|---|-------------------|----|-------------------|----|-------------------|
| 1 | $641 + 768 + 997$ | 11 | $646 + 373 + 259$ | 21 | $385 + 807 + 205$ |
| 2 | $761 + 815 + 300$ | 12 | $876 + 833 + 528$ | 22 | $366 + 313 + 578$ |

**3** 381 + 124 + 162  
**4** 203 + 528 + 101  
**5** 948 + 979 + 502  
**6** 53 + 959 + 135  
**7** 619 + 356 + 897  
**8** 326 + 146 + 56  
**9** 345 + 825 + 73  
**10** 746 + 413 + 568

**13** 372 + 87 + 241  
**14** 599 + 220 + 609  
**15** 152 + 603 + 707  
**16** 137 + 231 + 898  
**17** 320 + 208 + 577  
**18** 717 + 350 + 638  
**19** 732 + 542 + 494  
**20** 394 + 893 + 665

**23** 670 + 824 + 883  
**24** 838 + 740 + 597  
**25** 344 + 141 + 60  
**26** 942 + 252 + 51  
**27** 365 + 436 + 736  
**28** 432 + 764 + 893  
**29** 344 + 962 + 67  
**30** 363 + 132 + 484

## Subtraction



3

N3A

1	16 - 11	11	5 - 2	21	15 - 11
2	20 - 11	12	16 - 3	22	11 - 3
3	9 - 7	13	8 - 2	23	10 - 8
4	17 - 11	14	17 - 15	24	10 - 8
5	18 - 1	15	18 - 5	25	17 - 6
6	13 - 1	16	8 - 4	26	17 - 3
7	15 - 7	17	12 - 10	27	19 - 18
8	12 - 10	18	8 - 7	28	18 - 15
9	17 - 4	19	5 - 1	29	7 - 3
10	3 - 2	20	15 - 4	30	19 - 15

N3B

1	734 - 634	11	869 - 595	21	200 - 115
2	281 - 112	12	395 - 318	22	968 - 81
3	991 - 931	13	755 - 631	23	798 - 61
4	931 - 228	14	548 - 268	24	932 - 202
5	446 - 105	15	827 - 387	25	545 - 187
6	898 - 610	16	564 - 506	26	461 - 159
7	618 - 224	17	706 - 607	27	618 - 581
8	981 - 262	18	688 - 502	28	333 - 261
9	686 - 381	19	793 - 692	29	915 - 792
10	816 - 486	20	386 - 366	30	844 - 255

## Multiplication



N4A

1  $5 \times 2$

11  $7 \times 7$

21  $5 \times 4$

2  $5 \times 11$

12  $8 \times 10$

22  $7 \times 10$

3  $5 \times 2$

13  $7 \times 4$

23  $3 \times 12$

4  $7 \times 10$

14  $8 \times 12$

24  $8 \times 8$

5  $8 \times 7$

15  $4 \times 9$

25  $3 \times 9$

6  $2 \times 6$

16  $9 \times 12$

26  $2 \times 7$

7  $6 \times 10$

17  $11 \times 2$

27  $12 \times 3$

8  $10 \times 5$

18  $9 \times 9$

28  $7 \times 11$

9  $5 \times 5$

19  $8 \times 5$

29  $5 \times 6$

10  $3 \times 5$

20  $12 \times 4$

30  $6 \times 2$

N4B

1  $34 \times 4$

11  $71 \times 5$

21  $20 \times 9$

2  $25 \times 3$

12  $70 \times 2$

22  $92 \times 8$

3  $78 \times 8$

13  $82 \times 5$

23  $74 \times 6$

4  $91 \times 6$

14  $28 \times 7$

24  $95 \times 5$

5  $22 \times 2$

15  $60 \times 5$

25  $39 \times 7$

6  $57 \times 7$

16  $84 \times 6$

26  $42 \times 6$

7  $70 \times 5$

17  $46 \times 2$

27  $53 \times 7$

8  $58 \times 4$

18  $64 \times 4$

28  $79 \times 4$

9  $61 \times 7$

19  $70 \times 3$

29  $33 \times 3$

10  $64 \times 3$

20  $51 \times 4$

30  $23 \times 2$

N4C

1  $23 \times 100$

11  $1210 \div 10$

21  $790 \div 10$

- |                           |                            |                           |
|---------------------------|----------------------------|---------------------------|
| <b>2</b> $57 \times 100$  | <b>12</b> $17 \times 1000$ | <b>22</b> $3 \times 1000$ |
| <b>3</b> $2200 \div 10$   | <b>13</b> $84 \times 10$   | <b>23</b> $2300 \div 100$ |
| <b>4</b> $465 \times 10$  | <b>14</b> $29 \times 100$  | <b>24</b> $786 \times 10$ |
| <b>5</b> $390 \div 10$    | <b>15</b> $170 \div 10$    | <b>25</b> $13 \times 100$ |
| <b>6</b> $7200 \div 100$  | <b>16</b> $200 \div 100$   | <b>26</b> $3200 \div 100$ |
| <b>7</b> $892 \times 100$ | <b>17</b> $875 \times 10$  | <b>27</b> $8790 \div 10$  |
| <b>8</b> $890 \div 10$    | <b>18</b> $550 \div 10$    | <b>28</b> $2 \times 1000$ |
| <b>9</b> $9000 \div 1000$ | <b>19</b> $45 \times 100$  | <b>29</b> $987 \times 10$ |
| <b>10</b> $37 \times 10$  | <b>20</b> $2020 \div 10$   | <b>30</b> $9870 \div 10$  |

N4E

- |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|
| <b>1</b> $28 \times 22$  | <b>11</b> $42 \times 31$ | <b>21</b> $94 \times 68$ |
| <b>2</b> $11 \times 26$  | <b>12</b> $31 \times 25$ | <b>22</b> $11 \times 69$ |
| <b>3</b> $14 \times 18$  | <b>13</b> $17 \times 37$ | <b>23</b> $55 \times 91$ |
| <b>4</b> $25 \times 25$  | <b>14</b> $42 \times 39$ | <b>24</b> $90 \times 40$ |
| <b>5</b> $27 \times 11$  | <b>15</b> $23 \times 43$ | <b>25</b> $35 \times 10$ |
| <b>6</b> $24 \times 27$  | <b>16</b> $45 \times 15$ | <b>26</b> $67 \times 99$ |
| <b>7</b> $10 \times 23$  | <b>17</b> $22 \times 28$ | <b>27</b> $86 \times 48$ |
| <b>8</b> $11 \times 22$  | <b>18</b> $46 \times 31$ | <b>28</b> $93 \times 71$ |
| <b>9</b> $11 \times 28$  | <b>19</b> $17 \times 31$ | <b>29</b> $90 \times 95$ |
| <b>10</b> $10 \times 13$ | <b>20</b> $38 \times 24$ | <b>30</b> $12 \times 90$ |



## Factors and Multiples

4

N6A Find all the factors of the following numbers

1	18	11	35
2	20	12	26
3	12	13	28
4	10	14	32
5	8	15	30
6	14	16	40
7	22	17	36
8	15	18	9
9	21	19	25
10	27	20	16

N6B Find all of the multiples of the following numbers between the ranges given in brackets.

1	2 (20 – 30)	11	10 (130 – 155)
2	5 (30 – 50)	12	6 (70 – 90)
3	3 (10 – 25)	13	3 (90 – 105)
4	10 (80 – 100)	14	4 (65 – 75)
5	2 (55 – 65)	15	7 (40 – 70)
6	3 (50 – 65)	16	6 (100 – 120)
7	5 (40 – 55)	17	4 (105 – 120)
8	4 (40 – 60)	18	8 (40 – 70)
9	5 (95 – 115)	19	9 (60 – 90)
10	6 (30 – 50)	20	12 (60 – 90)

N6D Write the following numbers as a product of prime numbers

**1** 30

**2** 66

**3** 70

**4** 78

**5** 110

**6** 130

**7** 154

**8** 210

**9** 84

**10** 140

**11** 132

**12** 88

**13** 104

**14** 56

**15** 40

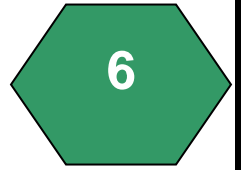
**16** 120

**17** 72

**18** 168

**19** 80

**20** 48



# Decimals

## Ordering



4

N7A Order the following sets of decimal numbers from smallest to largest:

- 1 0.8 1 0.3
- 2 0.8 0.7 0.2 0.6
- 3 1 0.4 0.3 0.8 0.2 0.5
- 4 0.13 0.36 0.21
- 5 0.3 0.64 0.83 0.1
- 6 0.84 0.1 0.3 0.47 0.88 0.6
- 7 0.343 0.673 0.777
- 8 0.495 0.89 0.534 0.7
- 9 0.06 0.254 0.1 0.571 0.116 0.215
- 10 4.6 1.8 5.2
- 11 8.8 6 0.7 4.4
- 12 8.4 6.5 3.2 4.6 4.7 6.1
- 13 80.81 4.03 29.1
- 14 42.65 62.23 91.4 91
- 15 81.05 2.51 53.1 49.51 21.34 74.24

## Decimal Addition

4

N8A

- |    |             |    |             |    |             |
|----|-------------|----|-------------|----|-------------|
| 1  | $2.7 + 5.7$ | 11 | $7.6 + 3.1$ | 21 | $4.9 + 3.2$ |
| 2  | $6.2 + 3.3$ | 12 | $3.6 + 7.3$ | 22 | $3.6 + 9.2$ |
| 3  | $8.6 + 4.1$ | 13 | $9.8 + 8.8$ | 23 | $3.5 + 1.2$ |
| 4  | $1.6 + 3.7$ | 14 | $0.2 + 5.2$ | 24 | $9.6 + 1.8$ |
| 5  | $6.5 + 5.4$ | 15 | $7.2 + 3.5$ | 25 | $1.1 + 4.8$ |
| 6  | $1.3 + 5.5$ | 16 | $9.1 + 1$   | 26 | $5.7 + 6$   |
| 7  | $2.1 + 5$   | 17 | $2.3 + 5.7$ | 27 | $5.4 + 5.3$ |
| 8  | $9.8 + 1.9$ | 18 | $8.3 + 7.9$ | 28 | $4.5 + 0.4$ |
| 9  | $3.4 + 6.5$ | 19 | $8.3 + 4.2$ | 29 | $7.5 + 6.1$ |
| 10 | $1.4 + 7.4$ | 20 | $9 + 6.4$   | 30 | $7.3 + 3$   |

N8B

- |    |              |    |              |    |              |
|----|--------------|----|--------------|----|--------------|
| 1  | $0.8 + 3.67$ | 11 | $9 + 5.88$   | 21 | $5.6 + 3.2$  |
| 2  | $7.9 + 0.47$ | 12 | $0.5 + 6.91$ | 22 | $8.3 + 5.09$ |
| 3  | $2.7 + 2.88$ | 13 | $2.4 + 8.45$ | 23 | $4.2 + 2.47$ |
| 4  | $1.3 + 6.55$ | 14 | $8.1 + 8.3$  | 24 | $7.9 + 7.6$  |
| 5  | $6.2 + 8.15$ | 15 | $7 + 8.68$   | 25 | $3.3 + 6.53$ |
| 6  | $6.3 + 7.17$ | 16 | $8.7 + 2.67$ | 26 | $7.8 + 1.72$ |
| 7  | $9.6 + 2.38$ | 17 | $8.6 + 8.59$ | 27 | $1.3 + 1.62$ |
| 8  | $2.2 + 5.05$ | 18 | $8.2 + 3.69$ | 28 | $4.6 + 1.6$  |
| 9  | $1.3 + 3.5$  | 19 | $4.9 + 6.64$ | 29 | $0.8 + 1.13$ |
| 10 | $8.3 + 3.2$  | 20 | $8.7 + 7.45$ | 30 | $5.8 + 7.79$ |

## Decimal Subtraction

4

N9A

- |    |             |    |             |    |             |
|----|-------------|----|-------------|----|-------------|
| 1  | $8.9 - 2.4$ | 11 | $5.1 - 2.7$ | 21 | $7 - 2.6$   |
| 2  | $4.2 - 0.5$ | 12 | $6.1 - 3$   | 22 | $7.4 - 5.4$ |
| 3  | $3.1 - 1.2$ | 13 | $6.1 - 2$   | 23 | $3.4 - 0.2$ |
| 4  | $7.5 - 1.3$ | 14 | $5.2 - 2.7$ | 24 | $4.4 - 1.8$ |
| 5  | $6.9 - 2.8$ | 15 | $8.2 - 2.9$ | 25 | $6.7 - 5.2$ |
| 6  | $6.6 - 3.6$ | 16 | $5.1 - 4.7$ | 26 | $7.4 - 4.6$ |
| 7  | $5.6 - 0.2$ | 17 | $4.1 - 3.2$ | 27 | $1.3 - 1$   |
| 8  | $9.5 - 6.9$ | 18 | $4.7 - 3$   | 28 | $7.4 - 4$   |
| 9  | $9 - 8.8$   | 19 | $9.9 - 7.2$ | 29 | $9.9 - 3$   |
| 10 | $2.7 - 0.9$ | 20 | $6.5 - 1.7$ | 30 | $7.3 - 2.9$ |

N9B

- |    |              |    |              |    |              |
|----|--------------|----|--------------|----|--------------|
| 1  | $4.7 - 2.95$ | 11 | $3.12 - 1.5$ | 21 | $6.1 - 5.88$ |
| 2  | $4.7 - 2.06$ | 12 | $9 - 7.03$   | 22 | $5.99 - 5.3$ |
| 3  | $3.81 - 3.2$ | 13 | $8.93 - 1.5$ | 23 | $2.6 - 0.72$ |
| 4  | $4.7 - 0.67$ | 14 | $6.4 - 4.66$ | 24 | $8 - 6.11$   |
| 5  | $6.7 - 6$    | 15 | $9 - 6.4$    | 25 | $5 - 3.9$    |
| 6  | $5.7 - 5.19$ | 16 | $6.9 - 0.79$ | 26 | $6.2 - 3.67$ |
| 7  | $6.41 - 6.1$ | 17 | $4.97 - 1$   | 27 | $5.96 - 0.9$ |
| 8  | $7.11 - 3$   | 18 | $4.88 - 1.1$ | 28 | $7.47 - 0.8$ |
| 9  | $7.32 - 0.8$ | 19 | $8.54 - 7.5$ | 29 | $4.58 - 0.5$ |
| 10 | $6.82 - 5.6$ | 20 | $7.62 - 2.4$ | 30 | $7.73 - 2.9$ |

## Decimal Multiplication



N10A Multiplying by 10, 100 and 1000

<b>1</b>	23.5 x 10	<b>11</b>	583.21x100	<b>21</b>	58.93 x 10
<b>2</b>	52.6 x 10	<b>12</b>	68.7 x 100	<b>22</b>	0.835 x 100
<b>3</b>	49.79 x 10	<b>13</b>	78.934 x 10	<b>23</b>	18.57 x 10
<b>4</b>	48.2 x 100	<b>14</b>	46.21 x 10	<b>24</b>	52.97 x 100
<b>5</b>	34.08 x 10	<b>15</b>	57.32 x 10	<b>25</b>	5.29 x 100
<b>6</b>	59.33 x1000	<b>16</b>	6.789 x 100	<b>26</b>	7.802 x 10
<b>7</b>	48.5 x 100	<b>17</b>	2.58 x 100	<b>27</b>	7.46 x 100
<b>8</b>	73.9 x 1000	<b>18</b>	0.68 x 1000	<b>28</b>	309.5 x 100
<b>9</b>	835.57 x100	<b>19</b>	12.59 x 10	<b>29</b>	46.29 x 100
<b>10</b>	407.8 x 10	<b>20</b>	5.003 x 10	<b>30</b>	0.085 x 100

## Decimal Division

N11A Division by 10, 100 or 1000



- |           |                  |           |                  |           |                  |
|-----------|------------------|-----------|------------------|-----------|------------------|
| <b>1</b>  | $527.4 \div 10$  | <b>11</b> | $53 \div 1000$   | <b>21</b> | $67.9 \div 10$   |
| <b>2</b>  | $34.5 \div 10$   | <b>12</b> | $27.9 \div 100$  | <b>22</b> | $167.42 \div 10$ |
| <b>3</b>  | $8.09 \div 100$  | <b>13</b> | $4.21 \div 1000$ | <b>23</b> | $51.7 \div 100$  |
| <b>4</b>  | $6.023 \div 10$  | <b>14</b> | $72.1 \div 100$  | <b>24</b> | $0.46 \div 10$   |
| <b>5</b>  | $15.08 \div 100$ | <b>15</b> | $8.93 \div 100$  | <b>25</b> | $0.37 \div 100$  |
| <b>6</b>  | $2.4 \div 10$    | <b>16</b> | $21.3 \div 100$  | <b>26</b> | $106.1 \div 100$ |
| <b>7</b>  | $2.5 \div 100$   | <b>17</b> | $428.3 \div 10$  | <b>27</b> | $4.7 \div 10$    |
| <b>8</b>  | $13.4 \div 100$  | <b>18</b> | $7.93 \div 100$  | <b>28</b> | $0.9 \div 100$   |
| <b>9</b>  | $4.05 \div 100$  | <b>19</b> | $67.05 \div 10$  | <b>29</b> | $0.58 \div 10$   |
| <b>10</b> | $0.89 \div 10$   | <b>20</b> | $689 \div 1000$  | <b>30</b> | $12.43 \div 100$ |

# Fractions

## Simplifying



N12A Cancel down the following fractions to their simplest form

1  $\frac{2}{4}$

11  $\frac{3}{12}$

21  $\frac{18}{24}$

2  $\frac{2}{6}$

12  $\frac{9}{12}$

22  $\frac{27}{36}$

3  $\frac{3}{6}$

13  $\frac{6}{15}$

23  $\frac{15}{18}$

4  $\frac{2}{8}$

14  $\frac{12}{15}$

24  $\frac{35}{60}$

5  $\frac{2}{10}$

15  $\frac{9}{15}$

25  $\frac{32}{36}$

6  $\frac{4}{10}$

16  $\frac{2}{12}$

26  $\frac{25}{45}$

7  $\frac{6}{10}$

17  $\frac{10}{12}$

27  $\frac{27}{72}$

8  $\frac{6}{8}$

18  $\frac{8}{10}$

28  $\frac{56}{96}$

9  $\frac{4}{8}$

19  $\frac{8}{12}$

29  $\frac{35}{84}$

10  $\frac{3}{9}$

20  $\frac{10}{15}$

30  $\frac{12}{27}$



## Fractions of Quantities

N15A

1  $\frac{1}{2}$  of 12

2  $\frac{1}{2}$  of 36

3  $\frac{1}{3}$  of 21

4  $\frac{1}{4}$  of 80

5  $\frac{1}{3}$  of 66

6  $\frac{1}{4}$  of 48

7  $\frac{1}{4}$  of 64

8  $\frac{1}{2}$  of 72

9  $\frac{1}{2}$  of 90

10  $\frac{1}{3}$  of 39

11  $\frac{1}{7}$  of 14

12  $\frac{1}{4}$  of 72

13  $\frac{1}{4}$  of 240

14  $\frac{1}{5}$  of 30

15  $\frac{1}{6}$  of 48

16  $\frac{3}{4}$  of 8

17  $\frac{2}{3}$  of 21

18  $\frac{5}{6}$  18

19  $\frac{7}{10}$  of 30

20  $\frac{3}{4}$  of 12

# Ratio

6

N16A Simplify the following ratios

1 3:6

2 5:10

3 3:9

4 4:8

5 3:12

6 24:8

7 4:12

8 4:16

9 4:20

10 5:15

# Percentages

## Converting between fractions decimals and percentages



4

### N17A Decimals to percentages

1	0.5
2	0.25
3	0.75
4	0.2
5	0.8
6	0.1
7	0.7
8	0.15
9	0.46
10	0.81
11	0.99
12	0.225
13	0.1468
14	1.25
15	2.3

### N17B Percentages to decimals

1	30
2	60
3	35
4	95
5	71
6	29
7	38
8	54
9	33
10	87.1
11	65.7
12	43.25
13	180
14	250
15	360

### N17D Decimals to fractions

1	0.5
2	0.25
3	0.75
4	0.7
5	0.3
6	0.4
7	0.35

8	0.85
9	0.48
10	0.26
11	0.625
12	0.455
13	2.25
14	1.5
15	3.6

N17E Percentages to fractions

**1** 60%  
**2** 30%  
**3** 25%  
**4** 65%  
**5** 85%  
**6** 37.5%  
**7** 47.5%  
**8** 24%  
**9** 64%  
**10** 88%  
**11** 22.5%

**12** 11%  
**13** 76%  
**14** 89.5%  
**15** 93%

## Percentages of Quantities



N18A

- |    |               |    |             |
|----|---------------|----|-------------|
| 1  | 50% of 80     | 11 | 10% of 90   |
| 2  | 25% of 60     | 12 | 40% of 60   |
| 3  | 50% of 130    | 13 | 30% of 130  |
| 4  | 75% of 200    | 14 | 70 % of 40  |
| 5  | 25% of 360    | 15 | 60% of 150  |
| 6  | 33.3 % of 15  | 16 | 10 % of 340 |
| 7  | 50% of 220    | 17 | 5% of 80    |
| 8  | 66.6 % of 30  |    |             |
| 9  | 33.3 % of 99  |    |             |
| 10 | 66.6 % of 120 |    |             |

# Negative Numbers

## Ordering



4

N22A Order the following sets of numbers from smallest to largest:

- 1 -9 13 9
- 2 -14 11 -18
- 3 -9 -20 17 -15
- 4 19 -5 2 -8 -16
- 5 18 -19 -15 -1 12 16
- 6 82 54 -67
- 7 -91 50 54
- 8 89 -16 8 -36
- 9 -26 73 -63 23 58
- 10 -19 -10 38 83 -37 -39
- 11 -451 184 -937
- 12 646 -443 920
- 13 11 -782 -439 -516
- 14 -323 -837 -706 -261 343
- 15 360 461 68 516 -731 644

N22B Order the following sets of numbers from largest to smallest:

- 1 -12 -8 7
- 2 -10 -11 5 2
- 3 -19 11 6 -17
- 4 3 7 -5 0 -16
- 5 -14 -2 -20 6 0 -12
- 6 87 -39 -57

- 7 -54 -47 36 98  
 8 -34 -70 -58 85  
 9 -14 -46 86 -100 -96  
 10 -37 -34 78 62 -75 -79  
 11 -821 -919 -375  
 12 232 312 -106 421  
 13 -515 399 204 -41  
 14 -698 430 -773 73 -647  
 15 -282 -353 407 -737 995 130

## Positive and Negative Number Addition and Subtraction



N23A

- |    |           |    |           |    |            |
|----|-----------|----|-----------|----|------------|
| 1  | $8 - 4$   | 21 | $2 - +9$  | 41 | $+5 + +0$  |
| 2  | $8 + 5$   | 22 | $9 - -4$  | 42 | $-5 + +2$  |
| 3  | $2 - 3$   | 23 | $3 + +6$  | 43 | $-5 + -1$  |
| 4  | $-5 - 4$  | 24 | $9 + +4$  | 44 | $+8 - +0$  |
| 5  | $5 + 1$   | 25 | $8 - +4$  | 45 | $+9 + -6$  |
| 6  | $0 + 1$   | 26 | $10 - -1$ | 46 | $-3 + -3$  |
| 7  | $-3 + 3$  | 27 | $8 + -6$  | 47 | $+6 - -2$  |
| 8  | $-8 - 3$  | 28 | $1 + +9$  | 48 | $-8 + +0$  |
| 9  | $-3 + 4$  | 29 | $10 - -6$ | 49 | $+1 - -10$ |
| 10 | $6 - 1$   | 30 | $10 - +7$ | 50 | $-2 - -9$  |
| 11 | $3 - 10$  | 31 | $6 + -9$  | 51 | $+6 + +9$  |
| 12 | $-1 - 10$ | 32 | $3 + -1$  | 52 | $-6 + +2$  |
| 13 | $0 - 1$   | 33 | $3 + +5$  | 53 | $+2 + -1$  |
| 14 | $9 - 2$   | 34 | $10 + -9$ | 54 | $-7 + +1$  |

**15**  $8 + 8$

**35**  $2 + +8$

**55**  $+9 + -1$

**16**  $3 + 2$

**36**  $8 + +3$

**56**  $-10 - -1$

**17**  $-8 + 9$

**37**  $1 - +9$

**57**  $-5 - +2$

**18**  $-4 - 1$

**38**  $1 + -5$

**58**  $+5 - +6$

**19**  $-3 - 8$

**39**  $10 - -1$

**59**  $-3 + -4$

**20**  $9 - 9$

**40**  $1 + +0$

**60**  $+4 + +6$

## Positive and Negative Number Multiplication and Division

N24A

**1**  $+0 \times +11$

**11**  $+2 \times -9$

**21**  $+5 \times -7$

**2**  $+10 \times +8$

**12**  $-6 \times +5$

**22**  $-12 \times +5$

**3**  $-1 \times +8$

**13**  $+3 \times -5$

**23**  $+6 \times -11$

**4**  $+0 \times -5$

**14**  $-3 \times -2$

**24**  $+4 \times +10$

**5**  $-5 \times -2$

**15**  $-1 \times -11$

**25**  $+5 \times -6$

**6**  $-10 \times +4$

**16**  $-2 \times -2$

**26**  $+11 \times +10$

**7**  $-12 \times +1$

**17**  $-9 \times -7$

**27**  $-12 \times -7$

**8**  $-5 \times -1$

**18**  $+7 \times -10$

**28**  $-6 \times +7$

**9**  $-3 \times +9$

**19**  $+6 \times -3$

**29**  $-4 \times +4$

**10**  $+10 \times -1$

**20**  $+7 \times +2$

**30**  $-5 \times -9$

N24B

**1**  $+8 \div +1$

**11**  $+15 \div -3$

**21**  $+10 \div -5$

**2**  $-84 \div +7$

**12**  $+10 \div -10$

**22**  $-20 \div -5$

**3**  $-66 \div +11$

**13**  $-21 \div +7$

**23**  $-44 \div -11$



$4 \quad -44 \div +11$

$5 \quad +60 \div +12$

$6 \quad -80 \div +10$

$7 \quad -33 \div +3$

$8 \quad +12 \div +2$

$9 \quad +0 \div +9$

$10 \quad +14 \div -7$

$14 \quad -20 \div -2$

$15 \quad +4 \div -4$

$16 \quad -15 \div +3$

$17 \quad -36 \div -9$

$18 \quad -54 \div -9$

$19 \quad -24 \div +3$

$20 \quad -20 \div -10$

$24 \quad +45 \div -5$

$25 \quad -12 \div -3$

$26 \quad +20 \div -5$

$27 \quad +6 \div -3$

$28 \quad -6 \div +6$

$29 \quad +96 \div +12$

$30 \quad -35 \div +5$

# Rounding

## Nearest 10, 100 or 1000



N25A

	Nearest 10		Nearest 100		Nearest 1000
<b>1</b>	271	<b>11</b>	1305	<b>21</b>	40009
<b>2</b>	456	<b>12</b>	2877	<b>22</b>	24786
<b>3</b>	25	<b>13</b>	4124	<b>23</b>	27171
<b>4</b>	387	<b>14</b>	4689	<b>24</b>	35542
<b>5</b>	209	<b>15</b>	334	<b>25</b>	19502
<b>6</b>	490	<b>16</b>	376	<b>26</b>	48091
<b>7</b>	332	<b>17</b>	481	<b>27</b>	42097
<b>8</b>	361	<b>18</b>	4126	<b>28</b>	46059
<b>9</b>	4099	<b>19</b>	322	<b>29</b>	9352
<b>10</b>	446	<b>20</b>	10	<b>30</b>	9219

N25B Round to the degree given in brackets

<b>1</b>	286 (nearest 100)	<b>11</b>	47799 (nearest 10)	<b>21</b>	11433 (nearest 10)
<b>2</b>	101 (nearest 100)	<b>12</b>	35206 (nearest 100)	<b>22</b>	30544 (nearest 100)
<b>3</b>	2187 (nearest 10)	<b>13</b>	13952 (nearest 1000)	<b>23</b>	3744 (nearest 10)
<b>4</b>	850 (nearest 10)	<b>14</b>	34924 (nearest 100)	<b>24</b>	17414 (nearest 1000)
<b>5</b>	39173 (nearest 1000)	<b>15</b>	349 (nearest 100)	<b>25</b>	41917 (nearest 100)
<b>6</b>	17929 (nearest 1000)	<b>16</b>	427 (nearest 100)	<b>26</b>	32145 (nearest 1000)
<b>7</b>	3609 (nearest 10)	<b>17</b>	9354 (nearest 1000)	<b>27</b>	14582 (nearest 1000)
<b>8</b>	49180 (nearest 10)	<b>18</b>	4693 (nearest 10)	<b>28</b>	30268 (nearest 100)
<b>9</b>	27600 (nearest 1000)	<b>19</b>	1466 (nearest 100)	<b>29</b>	1394 (nearest 10)
<b>10</b>	5674 (nearest 10)	<b>20</b>	38079 (nearest 1000)	<b>30</b>	2541 (nearest 1000)

## Decimal Places



N26A

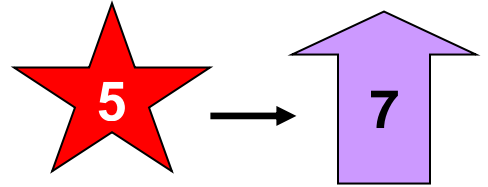
Nearest whole number (0 decimal places)		1 decimal place		2 decimal places	
1	34.4	11	4.56	21	0.224
2	16.7	12	0.39	22	0.428
3	37.2	13	2.65	23	0.156
4	1.8	14	4.46	24	0.324
5	4.6	15	0.2	25	0.272
6	33.9	16	3.49	26	0.053
7	0.76	17	3.03	27	0.302
8	4.7	18	3.85	28	0.236
9	2.83	19	3.19	29	0.073
10	4.54	20	2.78	30	0.437

N26B Round to the degree given in brackets

1	28.11 (whole number)	11	3.13 (1.d.p)	21	32.319 (2.d.p)
2	44.251 (2.d.p)	12	0.0316 (2.d.p)	22	1.055 (1.d.p)
3	0.404 (2.d.p)	13	0.3962 (2.d.p)	23	22.063 (2.d.p)
4	45.675 (2.d.p)	14	284.71 (whole number)	24	47.81 (2.d.p)
5	0.145 (2.d.p)	15	0.57 (1.d.p)	25	37.165 (1.d.p)
6	0.1018 (1.d.p)	16	4.88 (whole number)	26	16.618 (1.d.p)
7	321.06 (whole number)	17	2.121 (whole number)	27	171.14 (whole number)
8	107.46 (whole number)	18	4.412 (whole number)	28	36.785 (1.d.p)
9	0.4482 (1.d.p)	19	30.286 (1.d.p)	29	43.821 (2.d.p)
10	145.53 (whole number)	20	3.52 (whole number)	30	13.611 (1.d.p)

## Estimation

N28A



Find an estimate to following questions by:

- a) Using an appropriate degree of accuracy (nearest 10, 1 d.p. ...) **OR**  
b) Rounding each number to 1 significant figure

Then use your calculator to find the exact answer (remember BODMAS)

1  $7.89 \times 10.1$

16  $36 \div 5$

2  $3.75 \times (2.36 - 0.39)$

17  $(131.2 + 19.5) \div 50.27$

3  $37.12 \times 4.33$

18  $(700 + 96) \div 98$

4  $(2095 \times 302) + 396$

19  $0.634 \div 0.021$

5  $(3.4 \times 2.5) + 7.9$

20  $(400 - 52.3) \div 48.01$

6  $195.2 \div 48.7$

21  $89.7 \times 1.237$

7  $103 \div 11$

22  $653 \times 2.99$

8  $197 \div 19$

23  $613 \times 9.73$

9  $(38 \times 5) \div 19$

24  $345 \times 30.1$

10  $(53 \times 3.1) \div 49.5$

25  $73.9 \times 4.01$

11  $3.85 \times 7.27$

26  $(98.1 \times 4.09) \div 7.62$

12  $92.6 \times 3.69$

27  $(75.2 \times 99.9) \div 7753$

13  $0.0685 \times 111$

28  $(23.6 \times 2.89) \div 5.1$

14  $759 \times 76.2$

29  $(201 \times 3.55) \div 378$

15  $2345 \times 2.95$

30  $(23.4 \times 78.9) \div 42.3$

## Order of Operations (BIDMAS)



N29A

1  $5 - 3 + 2$

2  $5 \times 3 + 2$

3  $5 \times (3 + 2)$

4  $(14 - 3) \times 2$

5  $14 - 3 \times 2$

6  $10 - 5 - 3$

7  $10 - (5 - 3)$

8  $(8 + 12) \div 4$

9  $8 + 12 \div 4$

10  $2.5 \times 10 - 5$

11  $2 + 3 \times 4 + 5$

12  $(2 + 3) \times (4 + 5)$

13  $12 + 8 \div 2$

14  $10 - 4 + 2$

15  $10 - (4 + 2)$

16  $12 \div 6 \div 2$

17  $(8 + 7) \div (4 + 1)$

18  $5 \times 4 \times 3 \times 2 \times 1$

19  $13 - 10 \times 5$

20  $14 + 2 \times 3$

21  $17 \times 2^2 - 1$

22  $4 \times 2 + 8^2$

23  $2^2 \times (8 + 2)$

24  $2^2 \times 8 + 2$

25  $2 \times 4^2 + 16$

26  $15 - 3^2 + 6$

27  $15 - (4^2 + 4)$

28  $5^2 - 3^2$

29  $4 + 6^2 \div (2 \times 3)$

30  $(4^2 - 14) \div 10$

## Indices

1  $2^2$

2  $3^2$

3  $4^2$

4  $6^2$

5  $10^2$

6  $3^3$

7  $6^3$

8  $10^3$

9  $5^4$

10  $1^3$

11  $\sqrt{25}$

12  $\sqrt{225}$

13  $\sqrt{64}$

14  $\sqrt[3]{27}$

15  $\sqrt[3]{64}$

16  $\sqrt[3]{216}$

17  $\sqrt[4]{16}$

18  $\sqrt[4]{81}$

19  $\sqrt{900}$

20  $\sqrt{2500}$

21  $2^2 \times 2^2$

22  $2^2 \times 2^3$

23  $2^2 \times 3^2$

24  $2^2 \times 5^2$

25  $3^2 \times 3^3$

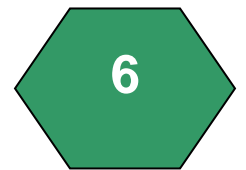
26  $3^3 \times 5$

27  $3^2 \times 10^2$

28  $10^2 \times 10^2$

29  $3^2 \times 5^2$

30  $4^2 \times 4^4$



# Algebra



## Simplifying

A1A Simplify where possible by collecting like terms

- |    |                |    |                 |    |                |
|----|----------------|----|-----------------|----|----------------|
| 1  | $a + a$        | 11 | $7b - 4b$       | 21 | $10n - 4n$     |
| 2  | $t + 2t$       | 12 | $4n - n$        | 22 | $12q - q$      |
| 3  | $6y + 3y$      | 13 | $8t - 7t$       | 23 | $2v - v$       |
| 4  | $4x + 3x$      | 14 | $6b + 2b - 3b$  | 24 | $7x + 4x - 5x$ |
| 5  | $10t - 5t$     | 15 | $c + c + c + c$ | 25 | $5n + 2n - 7n$ |
| 6  | $2w + 2w$      | 16 | $n + 5n$        | 26 | $7s - 2s - s$  |
| 7  | $6q + q$       | 17 | $2t + 3t$       | 27 | $7x - 5x + x$  |
| 8  | $4v + 6v$      | 18 | $8y + 3y$       | 28 | $9q - 4q - 3q$ |
| 9  | $4b + 10b + b$ | 19 | $4m + m + 7m$   | 29 | $8u - 5u - 2u$ |
| 10 | $2m + 3m + 7m$ | 20 | $6q + 7q + 7q$  | 30 | $4x + 3x - 2x$ |

A1B Simplify where possible by collecting like terms

- |    |                     |    |                           |
|----|---------------------|----|---------------------------|
| 1  | $2x + 5y + 4x$      | 16 | $2k + 7m + 3k - 4m$       |
| 2  | $4a + 2b + 5a$      | 17 | $5q + 9r + 2q - r$        |
| 3  | $5u + 4v - 2u$      | 18 | $7x + 5y - 4x + 2y$       |
| 4  | $8p + 9q - p$       | 19 | $8m + 5n - 7m + 3n$       |
| 5  | $2m + 6n + 5m + 3n$ | 20 | $10u + 8v - 4u - 3v$      |
| 6  | $2u + 5v + u + 3v$  | 21 | $7a + 5b + 8ab$           |
| 7  | $8b + 9c + 4b - 2c$ | 22 | $5a^2 + 10a + 10b$        |
| 8  | $11a + 12b + a - b$ | 23 | $7a + 3a - 9a$            |
| 9  | $9a + 3b - 5a + 6b$ | 24 | $3a - 4b + 2a - 3b$       |
| 10 | $9p + 7q - 4p - 3q$ | 25 | $3x + 4x$                 |
| 11 | $3u + 7v + 5u$      | 26 | $14a + 5b + 7a + 2b + ab$ |
| 12 | $6x + 4y + x$       | 27 | $5a + 4b + 3a + 2b$       |
| 13 | $7x + 9y - 5x$      | 28 | $4a + 5a - 9a$            |
| 14 | $4t + 7m - 3t$      | 29 | $4x + 5y + 2xy$           |
| 15 | $3p + 7q + 2p + 5q$ | 30 | $7m^2 + 5m^2 + 8m^2$      |



A1C Simplify the following expressions by expanding the bracket

1  $5(a + 6)$

2  $6(y + 3)$

3  $5(2w + 3)$

4  $3(5h + 2)$

5  $6(2k + 5)$

6  $7(x - 3)$

7  $6(2j - 5)$

8  $4(3b - 5)$

9  $5(2u - 6)$

10  $7(4c - 8)$

11  $2(x - y)$

12  $4(x + 2y)$

13  $10(2x + 3y)$

14  $3(7a - 4b)$

15  $7(5a - 7b)$

16  $10(x + 2y + 5)$

17  $6(x + y + 1)$

18  $2(27x + 49y)$

19  $7(5a - 7b - 9)$

20  $3(14a - 17b)$

21  $3y(x + y)$

22  $3x(2x - y)$

23  $5a(a + 5b)$

24  $12a(3a + 5b)$

25  $11c(3a + 2b)$

26  $5y(4x - 3y - 2)$

27  $6x(5x - 6y - 7)$

28  $8a(2a + 3b - 4)$

29  $12b(3a - 11b)$

30  $10a(2a + 3a^2)$

## Substitution

A3A Substitute the following values in the expressions below  
**a = 2, b = 3, c = 4, d = 0**



1	2a	11	$a^2$	21	$a^2b$
2	3a	12	$b^2$	22	$ab^2$
3	3b	13	$c^2$	23	$b^2c$
4	4c	14	$a^3$	24	$3b^2$
5	2d	15	$b^3$	25	$(3b)^2$
6	ab	16	$c^3$	26	$5c^2$
7	ac	17	$2a^2$	27	$a^2bc$
8	ad	18	$2b^2$	28	$abc^2d$
9	abc	19	$3c^2$	29	$a^3b$
10	abcd	20	$(ab)^2$	30	$a^2b^2c^2$

A3B Substitute the following values in the expressions below  
**a = 1, b = 5, c = 4, d = 0, x = 2, y = 5**



1	$a + x$	11	$a - x$	21	$2a^2 + 3y$
2	$b + x$	12	$a - 2x$	22	$5b^2 + 2x$
3	$c + x$	13	$a - 3x$	23	$3bc - x$
4	$a + 2x$	14	$b - y$	24	$5abc - 2y$
5	$a + 3x$	15	$b - 2y$	25	$2ad + x$
6	$b + 2x$	16	$b - 3y$	26	$a^2 + x^2$
7	$c + 3x$	17	$x^2$	27	$b^2c - y^2$
8	$2a + 3y$	18	$y^2$	28	$3ab + xy$
9	$4b + 3y$	19	$x^3$	29	$2ac - xy$
10	$3c + 4y$	20	$y^3$	30	$4bc - x^2y$



## Solving Equations

4

A4A Solve the following one step equations

1  $j + 3 = 9$

2  $v + 3 = 9$

3  $h - 6 = -2$

4  $y - 7 = -1$

5  $a - 5 = 2$

6  $m - 6 = 5$

7  $b - 1 = 2$

8  $m + 9 = 17$

9  $c + 0 = 2$

10  $y + 3 = 4$

11  $r + 4 = 13$

12  $n - 2 = 9$

13  $y - 3 = 0$

14  $t - 10 = -5$

15  $a + 1 = 7$

16  $s - 6 = 3$

17  $v + 7 = 13$

18  $f - 8 = -5$

19  $t - 2 = 0$

20  $k + 3 = 12$

21  $w - 5 = -4$

22  $d - 7 = -6$

23  $a + 7 = 13$

24  $w - 3 = 8$

25  $r + 2 = 6$

26  $s + 3 = 5$

27  $b + 8 = 14$

28  $p - 6 = -3$

29  $s + 1 = 6$

30  $b - 3 = 4$

A4B Solve the following one step equations

1  $8j = 16$

2  $10g = 50$

3  $8v = 24$

4  $7p = 14$

5  $7m = 21$

6  $5q = 40$

7  $5q = 40$

8  $4v = 40$

9  $12l = 60$

10  $3z = 27$

11  $5k = 10$

12  $8h = 16$

13  $2v = 18$

14  $3a = 30$

15  $4j = 24$

16  $10r = 10$

17  $10k = 90$

18  $4a = 16$

19  $8g = 40$

20  $4h = 36$

21  $4l = 4$

22  $3d = 33$

23  $9p = 54$

24  $2f = 12$

25  $3l = 6$

26  $5k = 55$

27  $12l = 72$

28  $10w = 70$

29  $5x = 45$

30  $8l = 64$

A4C Solve the following one step equations

1  $u \div 7 = 6$

2  $g \div 9 = 8$

3  $l \div 4 = 6$

4  $u \div 2 = 7$

5  $l \div 4 = 9$

6  $g \div 3 = 7$

7  $b \div 8 = 5$

8  $u \div 4 = 3$

9  $f \div 3 = 4$

10  $u \div 2 = 9$

11  $l \div 5 = 7$

12  $u \div 8 = 4$

13  $m \div 8 = 9$

14  $k \div 4 = 1$

15  $f \div 2 = 2$

16  $d \div 3 = 4$

17  $x \div 2 = 6$

18  $b \div 2 = 2$

19  $u \div 8 = 5$

20  $c \div 5 = 4$

21  $u \div 7 = 6$

22  $u \div 5 = 5$

23  $f \div 9 = 8$

24  $v \div 2 = 4$

25  $z \div 3 = 6$

26  $j \div 7 = 2$

27  $r \div 3 = 5$

28  $k \div 7 = 7$

29  $x \div 7 = 4$

30  $k \div 2 = 1$

A4D Solve the following two step equations

1  $2v - 9 = -7$

2  $c - 6 = -1$

3  $b + 7 = 18$

4  $5z - 4 = 51$

5  $a - 2 = 5$

6  $6z - 3 = 27$

7  $6q - 7 = 29$

8  $p + 4 = 8$

9  $7x - 6 = 43$

10  $6b + 3 = 27$

11  $6c - 6 = 18$

12  $9b - 8 = 73$

13  $9l + 8 = 98$

14  $4g - 5 = 19$

15  $3g - 1 = 11$

16  $3k + 0 = 33$

17  $2h + 8 = 24$

18  $2m - 10 = 10$

19  $9s + 9 = 45$

20  $3u - 9 = 24$

21  $6a + 6 = 18$

22  $3g + 7 = 10$

23  $5j + 6 = 61$

24  $2d + 8 = 28$

25  $2t + 7 = 19$

26  $7y - 8 = 62$

27  $8k + 8 = 56$

28  $8g + 6 = 86$

29  $3k + 3 = 6$

30  $5v - 2 = 38$

Gosport Stationery Shop

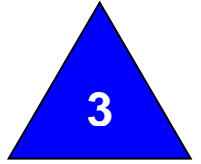
Pen	25p	Scientific Calculator	£4.25
Pencil	20p	Pencil Case	£2
Ruler	12p	Colour Pencils	£1.50
Rubber	7p	Highlighter pack	£2.65
Calculator	£2.50	Geometry set	£2.80

For each of the 20 orders below, find:

- The total cost
- The change given if you paid with a £10 note

- |           |  |           |  |
|-----------|--|-----------|--|
| <b>1</b>  | 3 pens   | <b>11</b> | 3 pens, 2 pencils and colour pencils   |
| <b>2</b>  | 2 pens and 2 pencils                                     | <b>12</b> | A ruler, a rubber and a calculator   |
| <b>3</b>  | A pen, a ruler and a rubber                              | <b>13</b> | A scientific calculator and a highlighter pack                                     |
| <b>4</b>  | A highlighter pack and a geometry set                    | <b>14</b> | A pencil case and 5 pencils  |
| <b>5</b>  | A pencil case and colour pencils                         | <b>15</b> | A geometry set and 3 pens  |
| <b>6</b>  | A pencil case, 2 pens, 2 pencils and a rubber            | <b>16</b> | 2 pens, 2 pencils and a scientific calculator                                      |
| <b>7</b>  | A pencil case a geometry set and a pen                   | <b>17</b> | A ruler, a rubber and a pencil case  |
| <b>8</b>  | A scientific calculator and a geometry set               | <b>18</b> | 10 pencils and colour pencils  |
| <b>9</b>  | A pen, pencil, ruler, rubber and pencil case             | <b>19</b> | Colour pencils, a highlighter pack and a geometry set                              |
| <b>10</b> | A pencil case with colour pencils and a highlighter pack | <b>20</b> | 2 pens, 2 pencils, a ruler, a rubber a calculator a pencil case and a geometry set |

# Time



What time do the clocks show?

1



6



2



7



3



8



4



9



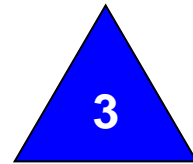
5



10



## 12 and 24 Hour Time



SSM3A change the following times to 24 hour time

<b>1</b>	7:00 AM	<b>11</b>	6:23 AM
<b>2</b>	11:00 AM	<b>12</b>	10:11 AM
<b>3</b>	8:30 AM	<b>13</b>	5:55 PM
<b>4</b>	5:15AM	<b>14</b>	5:55 AM
<b>5</b>	4:00 PM	<b>15</b>	9:41 PM
<b>6</b>	8:00 PM	<b>16</b>	7:28 AM
<b>7</b>	1:00 PM	<b>17</b>	11:59 PM
<b>8</b>	2:30 PM	<b>18</b>	8:05 PM
<b>9</b>	11:45 PM	<b>19</b>	12:01 AM
<b>10</b>	3:30 PM	<b>20</b>	7:09 PM

SSM3B Change the following times to 12 hour time

<b>1</b>	19:00	<b>11</b>	17:25
<b>2</b>	08:00	<b>12</b>	14:52
<b>3</b>	15:00	<b>13</b>	05:36
<b>4</b>	12:00	<b>14</b>	09:48
<b>5</b>	06:30	<b>15</b>	03:25
<b>6</b>	11:30	<b>16</b>	22:59
<b>7</b>	16:15	<b>17</b>	02:19
<b>8</b>	20:45	<b>18</b>	0:00
<b>9</b>	12:30	<b>19</b>	10:47
<b>10</b>	01:15	<b>20</b>	18:26



# Data Handling



## Averages

HD1A find the range, mode, median and mean of the following sets of data.

- 1 3 5 7
- 2 8 10 6
- 3 12 12 6
- 4 14 20 14
- 5 21 5 7
- 6 2 2 1 3
- 7 4 10 16 2
- 8 30 7 20 7
- 9 22 10 10 2
- 10 23 12 26 23
- 11 1 1 1 25 2
- 12 5 28 28 5 9
- 13 3 12 12 9 9
- 14 50 30 30 60 330
- 15 79 78 81 78 84
- 16 15 16 9 3 9 15 3
- 17 15 17 9 3 15 15 3
- 18 59 57 65 64 57 58
- 19 46 93 41 41 45 64
- 20 73 14 36 14 67 36
- 21 0.73 0.14 0.36 0.14 0.67 0.36
- 22 2.5 3.2 0.75 0.75 0.05
- 23 2.5 3.2 0.75 0.75 0.55
- 24 4.4 4.6 3.6
- 25 13.1 6.7 41.5 13.1
- 26 5.32 5.31 5.36 5.31 5.30
- 27 13.73 8.44 2.76 10.04 13.73
- 28 13.969 21.16 37.651
- 29 3.35 161.87 45.53 118.89
- 30 65.61 67.42 59.43 67.42 77.22

# Mixed Exercises



3

## Level 3

- 1 Which number is bigger 256 or 206?
- 2 Add the numbers 16 and 14
- 3 Subtract 9 from 36
- 4 What is  $3 \times 5$
- 5 Find  $45 + 55$
- 6 Find  $98 - 42$
- 7 Order the numbers 62, 48, 13, 89, 76, smallest first.
- 8 Calculate  $45 \div 5$
- 9 Which number is smaller 984 or 948?
- 10 Find the total of £12, £5 and £33
- 11 Take 28 from 59
- 12 Find  $9 \times 7$
- 13 What is 7:30AM in 24 hour time?
- 14 Multiply 6 by 8
- 15 Order the numbers 17, 3, 23, 18, 8, largest first
- 16 Subtracting 15 from 23
- 17 Divide 28 by 7
- 18 Add the numbers 8, 12 and 15
- 19 Order the numbers 888, 838, 899, smallest first
- 20 Find  $35 \div 7$
- 21 What time is 16:00 in 12 hour time?
- 22 Find the sum of 12, 14, 28 and 32
- 23 Subtract 293 from 698
- 24 What is  $4 \times 9$ ?
- 25 Find  $21 \div 7$
- 26 Find the sum of £25, £31 and £7
- 27 What time is 21:30 in 12 hour time
- 28 Find  $9 \times 9$
- 29 Order the numbers 28, 31, 22, 30 and 33, largest first
- 30 Add the numbers 252, 337 and 512



**Level 4**

- 1 Find  $16 \times 100$
- 2 What is  $29500 \div 10$
- 3 Find all the factors of 36
- 4 Write down one multiple of 4 between 30 and 40
- 5 Order the numbers 4.7, 4.9, 3.2, 5.2, 4.6, smallest first
- 6 Add together 5.93 and 6.8
- 7 Find  $28 - 3.21$
- 8 Change 0.37 into a percentage
- 9 Order the numbers 18, -3, 5, -12, -8, smallest first
- 10 Write the number 5762 to the nearest 100
- 11 Substitute  $d = 8$  into  $4d + 3$
- 12 Solve the equation  $y - 3 = 8$
- 13 Find the total cost of 4 pens at 35p each
- 14 Calculate  $157 \times 1000$
- 15 Work out  $847000 \div 100$
- 16 Find all the factors of 75
- 17 Write down a multiple of 9 between 60 and 90
- 18 Order the numbers 0.5, 0.15, 0.05, 0.51, largest first
- 19 Add together 106.82 and 3.029
- 20 Subtract 0.85 from 6.32
- 21 Convert 62.5% into a decimal number
- 22 Order the numbers -1.5, 2.3, -8, -9, 4.1, largest first
- 23 Write down the number 289 to the nearest 1000
- 24 Substitute  $r = 21$  into  $6r + 30$
- 25 Solve the equation  $8u = 48$
- 26 How much change would you get from £10 when spending £6.97
- 27 Work out  $10 - 7.95$
- 28 Change 2.46 into a percentage
- 29 Solve the equation  $\frac{12}{k} = 4$
- 30 Substitute  $a = 8$ ,  $b = 5$  and  $c = 11$  into  $3ab - 2c$

