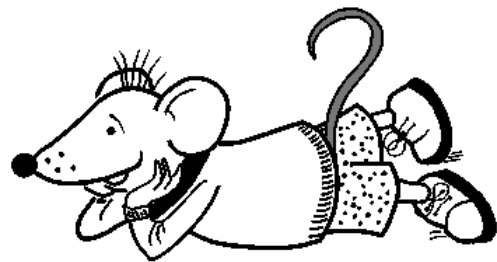
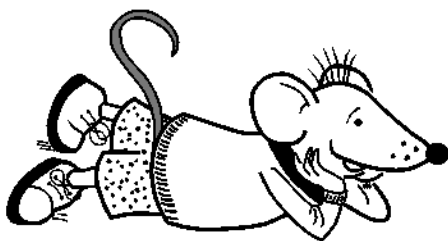


# **MENTAL ARITHMETIC**

## **YEAR 6**

## **AUTUMN TERM**



# **MathSphere**

**MENTAL ARITHMETIC : YEAR 6 : AUTUMN TERM : WEEK 1**

Paper 1	Answer	Paper 2	Answer
1. What does the digit 4 represent in 411 375?	<i>4 hundred thousand</i>	1. What does the digit 4 represent in 141 116?	<i>Forty thousand</i>
2. What does the digit 4 represent in 345 890?	<i>forty thousand</i>	2. What does the digit 4 represent in 1 223 489?	<i>Four hundred</i>
3. Write in figures: four hundred thousand and fifty five.	<b>400 055</b>	3. Write in figures: five hundred thousand seven hundred and sixty four.	<b>500 764</b>
4. Write in figures: two hundred and twenty two thousand.	<b>222 000</b>	4. Write in figures: three million.	<b>3 000 000</b>
5. How many times larger is 45 000 than 45?	<b>1 000</b>	5. How many times larger is 26 000 than 26?	<b>1 000</b>
6. How many times larger is 560 000 than 56?	<b>10 000</b>	6. How many times larger is 490 000 than 49?	<b>10 000</b>
7. How many £10 notes in £1 200?	<b>120</b>	7. How many £10 notes in £1 400?	<b>140</b>
8. How many £10 notes in £3 000?	<b>300</b>	8. How many £10 notes in £2 000?	<b>200</b>
9. What is 0.6 times 10?	<b>6</b>	9. What is 0.5 times 10?	<b>5</b>
10. What is 0.4 times 10?	<b>4</b>	10. What is 0.1 times 10?	<b>1</b>
Comment:		Comment:	

**MENTAL ARITHMETIC : YEAR 6 : AUTUMN TERM : WEEK 2**

Paper 3	Answer	Paper 4	Answer
1. What are two eighTEens?	<b>36</b>	1. What are two sixTEens?	<b>32</b>
2. Double 19.	<b>38</b>	2. Double 17.	<b>34</b>
3. What are two sixty fives?	<b>130</b>	3. What are two forty fives?	<b>90</b>
4. Double 35.	<b>70</b>	4. Double 55.	<b>110</b>
5. 9 times 4.	<b>36</b>	5. 9 times 6.	<b>54</b>
6. 9 times 8.	<b>72</b>	6. 9 times 9.	<b>81</b>
7. What is the product of 105 and 3?	<b>315</b>	7. What is the product of 202 and 4?	<b>808</b>
8. What is the product of 50 and 4?	<b>200</b>	8. What is the product of 60 and 5?	<b>300</b>
9. 0.8 times 10.	<b>8</b>	9. 0.3 times 10.	<b>3</b>
10. 0.2 times 10	<b>2</b>	10. 0.9 times 10	<b>9</b>
Comment:		Comment:	

**MENTAL ARITHMETIC : YEAR 6 : AUTUMN TERM : WEEK 3**

Paper 5	Answer	Paper 6	Answer
1. Share 72 by 9.	<b>8</b>	1. Share 45 by 9.	<b>5</b>
2. Share 64 by 8.	<b>8</b>	2. Share 40 by 8.	<b>5</b>
3. $18 \times 5$	<b>90</b>	3. $16 \times 5$	<b>80</b>
4. $15 \times 4$	<b>60</b>	4. $19 \times 4$	<b>76</b>
5. 6 times 99.	<b>594</b>	5. 4 times 99.	<b>396</b>
6. 12 times 99.	<b>1188</b>	6. 11 times 99.	<b>1089</b>
7. 3 divided by 4.	<b>0.75</b>	7. 6 divided by 4.	<b>1.5</b>
8. 2 divided by 10.	<b>0.2</b>	8. 7 divided by 10.	<b>0.7</b>
9. £4.41 times 10.	<b>£44.10</b>	9. £8.05 times 10.	<b>£80.50</b>
10. £2.38 times 10.	<b>£23.80</b>	10. £7.02 times 10.	<b>£70.20</b>
Comment:		Comment:	

**MENTAL ARITHMETIC : YEAR 6 : AUTUMN TERM : WEEK 4**

Paper 7	Answer	Paper 8	Answer
1. A half is the same as how many quarters?	<b>2 quarters</b>	1. A half is the same as how many sixths?	<b>3 sixths</b>
2. A half is the same as how many tenths?	<b>5 tenths</b>	2. A half is the same as how many eighths?	<b>4 eighths</b>
3. How many halves are there in one and a half?	<b>3 halves</b>	3. How many halves are there in two and a half?	<b>5</b>
4. How many halves are there in four and a half?	<b>9 halves</b>	4. How many halves are there in five and a half?	<b>11</b>
5. What is two tenths of 30?	<b>6</b>	5. What is two tenths of 20?	<b>4</b>
6. What is three tenths of 40?	<b>12</b>	6. What is three tenths of 50?	<b>15</b>
7. If 10 fairground tickets cost £4.50, how much would one cost?	<b>45p</b>	7. If 10 fairground tickets cost £6.50, how much would one cost?	<b>65p</b>
8. If 10 cans of drink cost £3.30, how much would one cost?	<b>33p</b>	8. If 10 cans of drink cost £2.80, how much would one cost?	<b>28p</b>
9. What number is half way between one and a quarter and one and three quarters?	<b>one and a half</b>	9. What number is half way between two and a half and three?	<b>two and three quarters</b>
10. How many sixths in one whole one?	<b>6 sixths</b>	10. How many sevenths in one whole one?	<b>7 sevenths</b>
Comment:		Comment:	

**MENTAL ARITHMETIC : YEAR 6 : AUTUMN TERM : WEEK 5**

Paper 9	Answer	Paper 10	Answer
1. 10 bags of carrots cost £4.60. How much would one bag cost?	<b>46p</b>	1. 10 boxes of strawberries cost £9.60. How much would one box cost?	<b>96p</b>
2. 10 bottles of drink cost £7.00. How much would one bottle cost?	<b>70p</b>	2. 10 bottles of cola cost £6.50. How much would one bottle cost?	<b>65p</b>
3. How many quarters in one and a quarter?	<b>5 quarters</b>	3. How many quarters in two and a quarter?	<b>9 quarters</b>
4. How many quarters in two and a half?	<b>10 quarters</b>	4. How many quarters in three and a half?	<b>14 quarters</b>
5. What is four tenths of 20?	<b>8</b>	5. What is three tenths of 50?	<b>15</b>
6. What is nine tenths of 100?	<b>90</b>	6. What is eight tenths of 100?	<b>80</b>
7. Write 0.07 as a fraction.	$\frac{7}{100}$	7. Write 0.04 as a fraction.	$\frac{4}{100}$
8. Write 0.03 as a fraction.	$\frac{3}{100}$	8. Write 0.09 as a fraction.	$\frac{9}{100}$
9. Write 0.13 as a fraction.	$\frac{13}{100}$	9. Write 0.35 as a fraction.	$\frac{35}{100}$
10. Write 0.29 as a fraction.	$\frac{29}{100}$	10. Write 0.67 as a fraction.	$\frac{67}{100}$
Comment:		Comment:	

**MENTAL ARITHMETIC : YEAR 6 : AUTUMN TERM : WEEK 6**

Paper 11	Answer	Paper 12	Answer
1. If you roll a one to six dice what is the probability of rolling a three?	<b>1/6</b>	1. If you roll a one to six dice what is the probability of rolling a six?	<b>1/6</b>
2. If you roll a one to six dice what is the probability of rolling an odd number?	<b>1/2</b>	2. If you roll a one to six dice what is the probability of rolling an even number?	<b>1/2</b>
3. Multiply 3.5 by 100.	<b>350</b>	3. Multiply 1.8 by 100.	<b>180</b>
4. Multiply 3.5 by 1 000.	<b>3 500</b>	4. Multiply 2.4 by 1 000.	<b>2 400</b>
5. How many times larger is 45 000 than 45?	<b>1 000</b>	5. How many times larger is 33 000 than 33?	<b>1 000</b>
6. How many times larger is 3 600 than 36?	<b>100</b>	6. How many times larger is 4 500 than 45?	<b>100</b>
7. What is 0.7 times 10?	<b>7</b>	7. What is 0.8 times 10?	<b>8</b>
8. What is 0.7 times 100?	<b>70</b>	8. What is 0.8 times 100?	<b>80</b>
9. The temperature is $-4^{\circ}$ . It falls by $5^{\circ}$ . What is the temperature now?	<b><math>-9^{\circ}</math></b>	9. The temperature is $-2^{\circ}$ . It falls by $6^{\circ}$ . What is the temperature now?	<b><math>-8^{\circ}</math></b>
10. The temperature is $-3^{\circ}$ . It rises by $6^{\circ}$ . What is the temperature now?	<b><math>3^{\circ}</math></b>	10. The temperature is $-4^{\circ}$ . It rises by $5^{\circ}$ . What is the temperature now?	<b><math>1^{\circ}</math></b>
Comment:		Comment:	

**MENTAL ARITHMETIC : YEAR 6 : AUTUMN TERM : WEEK 7**

Paper 13	Answer	Paper 14	Answer
1. Adam travelled 35.5 km by train and 500 metres by foot. How far in kilometres did he travel altogether?	<b>36 km</b>	1. Jan travelled 42.5 km by train and 400 metres by foot. How far in kilometres did she travel altogether?	<b>42.9 km</b>
2. Alec went 24.6 km by train and then rode his bike a further 800 metres. How far in kilometres did he travel altogether?	<b>25.4 km</b>	2. Claire went 15.7 km by train and then rode her bike a further 800 metres. How far in kilometres did she travel altogether?	<b>16.5 km</b>
3. I cut 50 cm off a 3 metre piece of string. How much is left?	<b>2.5m</b>	3. I cut 70 cm off a 4 metre piece of string. How much is left?	<b>3.3 m</b>
4. Which is more: 5 inches of tape or 5 cm of tape?	<b>5 inches</b>	4. Which is more: 6 inches of tape or 6 cm of tape?	<b>6 inches</b>
5. One bag of potatoes weighed 5 kg. Another only weighed 4 kg and 450g. How much less did the second bag weigh?	<b>550g</b>	5. One bag of potatoes weighed 10 kg. Another only weighed 9 kg and 600g. How much less did the second bag weigh?	<b>400g</b>
6. How many grams of onions must be added to 2.75kg to make 3 kg?	<b>250g</b>	6. How many grams of onions must be added to 1.65kg to make 2 kg?	<b>350 g</b>
7. There is 250 ml of drink in a small bottle of drink. A large bottle holds four times as much. How much does a large bottle hold?	<b>1000ml or 1 litre</b>	7. There is 300 ml of drink in a small bottle of drink. A large bottle holds five times as much. How much does a large bottle hold?	<b>1 500 ml or 1.5 l</b>
8. Write 4.2 kilometres in metres.	<b>4 200m</b>	8. Write 6.3 kilometres in metres.	<b>6 300m</b>
9. Write 5.45 km in metres.	<b>5 450m</b>	9. Write 2.11 km in metres.	<b>2 110m</b>
10. About how many pints are there in one litre.	<b>2 (1¼)</b>	10. About how many pounds (lb) are there in one kilogram	<b>2 (2.2)lb</b>
Comment:		Comment:	



**MENTAL ARITHMETIC : YEAR 6 : AUTUMN TERM : WEEK 8**

Paper 15	Answer	Paper 16	Answer
1. How many years in a millennium?	<b>1 000</b>	1. How many years in a decade?	<b>10</b>
2. How many years in a century?	<b>100</b>	2. How many weeks in a year?	<b>52</b>
3. How many months in 2 years?	<b>24</b>	3. How many days in a leap year?	<b>366</b>
4. How many days in a year?	<b>365</b>	4. How many months in 5 years?	<b>60</b>
5. How many days in a fortnight?	<b>14</b>	5. How many minutes in three hours?	<b>180</b>
6. How many hours in two days?	<b>48</b>	6. How many hours in three days?	<b>72</b>
7. How many seconds in 5 minutes?	<b>300</b>	7. How many minutes in three and a half hours?	<b>210</b>
8. How many days are there in January.	<b>31</b>	8. How many days are there in December?	<b>31</b>
9. How many days in March?	<b>31</b>	9. How many days in June?	<b>30</b>
10. If today is Tuesday what day was it the day before yesterday?	<b>Sunday</b>	10. If it is Friday today, what day will it be the day after tomorrow?	<b>Sunday</b>
Comment:		Comment:	

**MENTAL ARITHMETIC : YEAR 6 : AUTUMN TERM : WEEK 9**

Paper 17	Answer	Paper 18	Answer
1. What is the area of a rectangle 6½ cm long and 4 cm wide?	<b>26 sq cm</b>	1. What is the area of a rectangle 10½ cm long and 8 cm wide?	<b>84 sq cm</b>
2. What is the area of a rectangle 10 cm long and 4½ cm wide?	<b>45 sq cm</b>	2. What is the area of a rectangle 10 cm long and 6½ cm wide?	<b>65 sq cm</b>
3. What is the perimeter of a rectangle 8 cm long and 2½ cm wide?	<b>21 cm</b>	3. What is the perimeter of a rectangle 9 cm long and 3½ cm wide?	<b>25 cm</b>
4. What is the perimeter of a rectangle 6½ cm long and 5 cm wide?	<b>23 cm</b>	4. What is the perimeter of a rectangle 8 cm long and 1½ cm wide?	<b>19 cm</b>
5. What is 3 794 g to the nearest whole kilogram?	<b>4 kg</b>	5. What is 2 694 g to the nearest whole kilogram?	<b>3 kg</b>
6. What is 2 536 g to the nearest whole kilogram?	<b>3 kg</b>	6. What is 1 486 g to the nearest whole kilogram?	<b>1 kg</b>
7. Write 3 cm in metres.	<b>0.03 m</b>	7. Write 1 cm in metres.	<b>0.01 m</b>
8. Write 8 cm in metres.	<b>0.08 m</b>	8. Write 9 cm in metres.	<b>0.09 m</b>
9. If two angles of a triangle add up to 100°, what is the third angle?	<b>80°</b>	9. If two angles of a triangle add up to 45°, what is the third angle?	<b>135°</b>
10. If two angles of a triangle add up to 50°, what is the third angle?	<b>130°</b>	10. If two angles of a triangle add up to 165°, what is the third angle?	<b>15°</b>
Comment:		Comment:	

**MENTAL ARITHMETIC : YEAR 6 : AUTUMN TERM : WEEK 10**

Paper 19	Answer	Paper 20	Answer
1. What is 2 000 subtract 1 750?	<b>250</b>	1. What is 4 000 subtract 2 999?	<b>1 001</b>
2. What is 3 000 subtract 1 999?	<b>1 001</b>	2. What is 5 000 subtract 3 998?	<b>1 002</b>
3. 5.3 plus 0.9	<b>6.2</b>	3. 7.4 plus 0.9	<b>8.3</b>
4. 5.7 plus 0.8	<b>6.5</b>	4. 6.6 plus 0.8	<b>7.4</b>
5. 4.7 plus 1.9	<b>6.6</b>	5. 4.4 plus 1.9	<b>6.3</b>
6. 8.2 plus 0.9	<b>9.1</b>	6. 7.2 plus 0.9	<b>8.1</b>
7. 2.6 subtract 0.9.	<b>1.7</b>	7. 8.4 subtract 0.9.	<b>7.5</b>
8. 1.7 subtract 0.9.	<b>0.8</b>	8. 9.2 subtract 0.9.	<b>8.3</b>
9. What is the difference between 1.1 and 4.5?	<b>3.4</b>	9. What is the difference between 2.2 and 6.6?	<b>4.4</b>
10. What is the difference between 1.3 and 2.2?	<b>0.9</b>	10. What is the difference between 1.5 and 3.1?	<b>1.6</b>
Comment:		Comment:	

**MENTAL ARITHMETIC : YEAR 6 : AUTUMN TERM : WEEK 11**

Paper 21	Answer	Paper 22	Answer
1. What number comes next in this sequence? 1, 4, 9, 16 ?	<b>25</b>	1. What number comes next in this sequence? 49, 36, 25, 16, ?	<b>9</b>
2. What number comes next in this sequence? -5, 10, 25, 40 ?	<b>55</b>	2. What number comes next in this sequence? 20, 15, 10, 5, ?	<b>0</b>
3. Is 43 a multiple of 3?	<b>no</b>	3. Is 23 a multiple of 3?	<b>no</b>
4. Is 324 a multiple of 9?	<b>yes</b>	4. Is 199 a multiple of 9?	<b>no</b>
5. What is 3 squared?	<b>9</b>	5. What is 5 squared?	<b>25</b>
6. What is 7 squared?	<b>49</b>	6. What is 8 squared?	<b>64</b>
7. The area of a square is 64 sq cm. What is the length of one side of the square?	<b>8 cm</b>	7. The area of a square is 36 sq cm. What is the length of one side of the square?	<b>6 cm</b>
8. The area of a square is 100 sq metres. What is the length of one side of the square?	<b>10 m</b>	8. The area of a square is 81 sq metres. What is the length of one side of the square?	<b>9 m</b>
9. Which of these is a prime number? 9, 12, 13, 24 ?	<b>13</b>	9. Which of these is a prime number? 8, 17, 21, 48?	<b>17</b>
10. Which of these numbers is a prime number? 4, 15, 21, 23 ?	<b>23</b>	10. Which of these numbers is a prime number? 2, 22, 200, 220 ?	<b>2</b>
Comment:		Comment:	

**MENTAL ARITHMETIC : YEAR 6 : AUTUMN TERM : WEEK 12**

Paper 23	Answer	Paper 24	Answer
1. Three fifths is the same as how many tenths?	<b>6 tenths</b>	1. Four fifths is the same as how many tenths?	<b>8 tenths</b>
2. One third is the same as how many ninths?	<b>3 ninths</b>	2. Two thirds is the same as how many ninths?	<b>6 ninths</b>
3. What is three tenths of 70?	<b>21</b>	3. What is seven tenths of 20?	<b>14</b>
4. What is four fifths of 100?	<b>80</b>	4. What is two fifths of 40?	<b>16</b>
5. How many thirds in one and two thirds?	<b>5 thirds</b>	5. How many thirds in two and two thirds?	<b>8 thirds</b>
6. How many tenths in three and three tenths?	<b>33 tenths</b>	6. How many tenths in four and six tenths?	<b>46 tenths</b>
7. 5 600 plus 2 500.	<b>8 100</b>	7. 4 600 plus 1 800.	<b>6 400</b>
8. 4 700 plus 1 800.	<b>6 500</b>	8. 3 300 plus 1 900.	<b>5 200</b>
9. 3 100 subtract 1 900.	<b>1 200</b>	9. 2 100 subtract 1 600.	<b>500</b>
10. 4 200 subtract 3 300.	<b>900</b>	10. 5 500 subtract 4 900.	<b>600</b>
Comment:		Comment:	