



UXBRIDGE  
HIGH SCHOOL



# Year 6 - 7 Transition Pack

**Numeracy and Mathematics**

---

## Contents and Instructions

### **Section 1 - Numeracy Ninjas**

Try and do one session every day. Give yourself 5 minutes to complete as much as you can. After you have completed the session, turn to section 5 to mark your answers.

### **Section 2 - Primary Numeracy Skills**

Aim to do one page from this section every day. These will be marked by your teachers when you get to Uxbridge High School.

### **Section 3 - Secondary Numeracy Skills**

Aim to do one page from this section every day. These will be marked by your teachers when you get to Uxbridge High School.

### **Section 4 - Challenge**

If you're someone who really enjoys mathematical problems and puzzles, you can challenge yourself by attempting the questions in the challenge section. You can find answers in section 6.

### **Section 5 - Numeracy Ninja Answers**

### **Section 6 - Challenge Answers**

### **Section 7 - Notes**

Use these pages for any working out or notes you want to make.

# Section 1

## Numeracy Ninjas

## WEEK 1 SESSION 1 - Answer as many questions as you can in 5 mins

### MENTAL STRATEGIES -

do these in your head

Q	Question	Answer
1	$2 + 3$	
2	$89 + 11$	
3	What is half of 6?	
4	$125 - 10$	
5	$177 + \square = 270$	
6	$53 = 23 + \square$	
7	$805 - 804$	
8	$4 \times 1 = 4$ , so $4 \div 4 = \square$	
9	Write 20:12 in 12 hour clock format	
10	9:37 pm is how many minutes after 9:08 pm?	
<b>Total out of 10</b>		

### TIMESTABLES -

do these in your head

Q	Question	Answer
1	$2 \times 9 = \square$	
2	$24 \div 3 = \square$	
3	$10 \times \square = 80$	
4	$6 \div \square = 3$	
5	$1 \times 2 = \square$	
6	$28 \div 7 = \square$	
7	$\square \times 6 = 54$	
8	$\square \div 2 = 5$	
9	$3 \times 9 = \square$	
10	$4 \div 4 = \square$	
<b>Total out of 10</b>		

**KEY SKILLS** – you may use written calculations for these questions

Q	Question	Answer
1	$61 \times 31$	
2	$657 - 382$	
3	$7.2 \times 94.2$	
4	0.7 as a fraction	
5	$46.15 + 5.08$	
6	$(-40) \div (-4)$	
7	If $a = 4$ , $b = 3$ and $c = 1$ , what is the value of $3a - b^2$ ?	
8	$3 - (-5)$	
9	What is the highest common factor of 12 and 4?	
10	What is the value of 13 squared?	
<b>Total out of 10</b>		

## WEEK 1 SESSION 2 - Answer as many questions as you can in 5 mins

### MENTAL STRATEGIES -

do these in your head

Q	Question	Answer
1	$\square + 4 = 5$	
2	$38 + 62$	
3	What is half of 2?	
4	$128 - 10$	
5	$120 + \square = 210$	
6	$124 = 90 + \square$	
7	$610 - 606$	
8	$1 \times 7 = 7$ , so $7 \div 1 = \square$	
9	Write 11:07 am in 24 hour clock format	
10	From 3:01 am, how many minutes until 3:19 am?	
<b>Total out of 10</b>		

### TIMESTABLES -

do these in your head

Q	Question	Answer
1	$2 \times 9 = \square$	
2	$30 \div 5 = \square$	
3	$10 \times \square = 100$	
4	$54 \div \square = 6$	
5	$10 \times 7 = \square$	
6	$40 \div 10 = \square$	
7	$\square \times 5 = 15$	
8	$\square \div 8 = 8$	
9	$5 \times 1 = \square$	
10	$24 \div 3 = \square$	
<b>Total out of 10</b>		

**KEY SKILLS** – you may use written calculations for these questions

Q	Question	Answer
1	$81 \times 98$	
2	$1596 - 837$	
3	$9.1 \times 13.13$	
4	20% as a fraction	
5	$4.98 + 15.59$	
6	$(-18) \div 3$	
7	If $a = 7$ , $b = 5$ and $c = 3$ , what is the value of $3b^2$ ?	
8	$(-1) - (-4)$	
9	Is 2 a factor of 12?	
10	What is the positive value of $\sqrt{64}$ ?	
<b>Total out of 10</b>		

## WEEK 2 SESSION 1 - Answer as many questions as you can in 5 mins

### MENTAL STRATEGIES -

do these in your head

Q	Question	Answer
1	$\square + 6 = 10$	
2	What is double 5?	
3	Halve 63	
4	$26 + 30$	
5	$98 + 99$	
6	$22 + 10 = 22 + 8 + \square$	
7	$3 + 223$	
8	$20 + 61 = 20 + 60 + \square$	
9	$\square + 3 = 5$	
10	$\square + 2 = 20$	
<b>Total out of 10</b>		

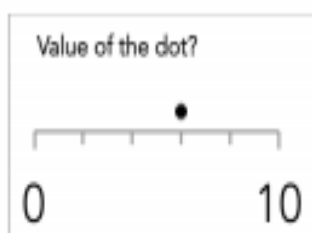
### TIMESTABLES -

do these in your head

Q	Question	Answer
1	$9 \times 5 = \square$	
2	$10 \div 2 = \square$	
3	$8 \times \square = 8$	
4	$16 \div \square = 4$	
5	$8 \times 4 = \square$	
6	$15 \div 3 = \square$	
7	$\square \times 2 = 12$	
8	$\square \div 7 = 1$	
9	$5 \times 8 = \square$	
10	$14 \div 2 = \square$	
<b>Total out of 10</b>		

### KEY SKILLS - you may use written calculations

for these questions

Q	Question	Answer
1	$3905 \div 5$	
2	$7 + 25 \div 5$	
3	$2.013 \div 0.1$	
4	$2.26 \times 1000$	
5	$34 - 0.74$	
6	Write $56/72$ in its simplest form	
7	Difference between 4 and -4	
8	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <p>Value of the dot?</p>  <p>0 <span style="margin-left: 100px;">10</span></p> </div>	
9	What is the lowest common multiple of 4 and 5?	
10	What is the cube root of 27?	
<b>Total out of 10</b>		

## WEEK 2 SESSION 2 - Answer as many questions as you can in 5 mins

### MENTAL STRATEGIES -

do these in your head

Q	Question	Answer
1	$6 + \square = 10$	
2	What is double 7?	
3	Halve 31	
4	$103 + 60$	
5	$76 + 77$	
6	$43 + 9 = 43 + 7 + \square$	
7	$5 + 142$	
8	$95 + 13 = 90 + 10 + \square$	
9	$3 + 2$	
10	$3 + \square = 20$	
<b>Total out of 10</b>		

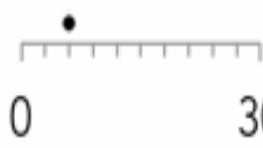
### TIMESTABLES -

do these in your head

Q	Question	Answer
1	$9 \times 3 = \square$	
2	$63 \div 9 = \square$	
3	$10 \times \square = 20$	
4	$30 \div \square = 10$	
5	$10 \times 8 = \square$	
6	$64 \div 8 = \square$	
7	$\square \times 2 = 16$	
8	$\square + 7 = 6$	
9	$4 \times 3 = \square$	
10	$72 \div 9 = \square$	
<b>Total out of 10</b>		

### KEY SKILLS - you may use written calculations

for these questions

Q	Question	Answer
1	$608 \div 4$	
2	$1 + 4 \times 2$	
3	$42.4 \div 8$	
4	$0.86 \times 1000$	
5	$27.39 - 2.59$	
6	Write $72/80$ in its simplest form	
7	Which is the lowest number, 2 or -10?	
8	<div style="border: 1px solid black; padding: 5px; width: fit-content;">           Value of the dot?   </div>	
9	What is the lowest common multiple of 3 and 4?	
10	What is the value of (-5) cubed?	
<b>Total out of 10</b>		

## WEEK 3 SESSION 1 - Answer as many questions as you can in 5 mins

### MENTAL STRATEGIES -

do these in your head

Q	Question	Answer
1	$\square + 13 = 20$	
2	Double 96	
3	$79 + 10$	
4	$120 - 80$	
5	$8 = 7 + \square$	
6	$13 - 10 = 13 - 3 - \square$	
7	$85 + 85 = 85 \times \square$	
8	What is the time on the clock?	am
9	$8 + 2$	
10	$81 + \square = 100$	
<b>Total out of 10</b>		

### TIMESTABLES -

do these in your head

Q	Question	Answer
1	$6 \times 6 = \square$	
2	$3 \div 3 = \square$	
3	$4 \times \square = 32$	
4	$4 \div \square = 4$	
5	$5 \times 4 = \square$	
6	$45 \div 9 = \square$	
7	$\square \times 7 = 28$	
8	$\square \div 6 = 9$	
9	$4 \times 5 = \square$	
10	$48 \div 8 = \square$	
<b>Total out of 10</b>		



**KEY SKILLS** - you may use written calculations for these questions

Q	Question	Answer
1	$2757 + 5432$	
2	$4^2 + 2 \times 4$	
3	Write Four Thousand, Three Hundred and Twenty in digits	
4	$5.94 \div 10$	
5	$1 \times (-8)$	
6	Round 0.7475 to 1 d.p.	
7	$1 + (-9)$	
8	Round 0.4559 to 2 s.f.	
9	Letter at (-2, -2) <div style="text-align: center;"> <math>y</math>  <math>\uparrow</math>            A B C D E            F G H I J            K L M N P x            Q R S T U            V W X Y Z         </div>	
10	$10/1 = \square/4$	
<b>Total out of 10</b>		



## WEEK 3 SESSION 2 - Answer as many questions as you can in 5 mins

### MENTAL STRATEGIES -

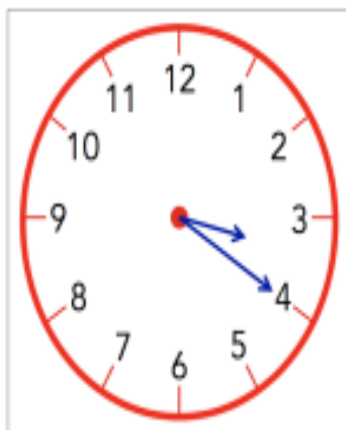
do these in your head

Q	Question	Answer
1	$20 + \square = 20$	
2	Double 53	
3	$51 + 10$	
4	$100 - 10$	
5	$8 = 4 + \square$	
6	$70 - 11 = 70 - 10 - \square$	
7	$7 + 7 + 7 + 7 = \square \times 7$	
8	What is the time on the clock?	pm
9	$1 + \square = 10$	
10	$66 + 34$	
<b>Total out of 10</b>		

### TIMESTABLES -

do these in your head

Q	Question	Answer
1	$2 \times 3 = \square$	
2	$7 \div 1 = \square$	
3	$8 \times \square = 80$	
4	$16 \div \square = 4$	
5	$9 \times 5 = \square$	
6	$35 \div 7 = \square$	
7	$\square \times 9 = 81$	
8	$\square \div 10 = 2$	
9	$8 \times 2 = \square$	
10	$63 \div 9 = \square$	
<b>Total out of 10</b>		



### KEY SKILLS - you may use written calculations

for these questions

Q	Question	Answer																														
1	$271 + 8501$																															
2	$(8 - 2)^2 + 3 \times 4$																															
3	Write 4335000 in words. (Use the opposite page for your answer)																															
4	$0.8 \div 100$																															
5	$(-1) \times (-9)$																															
6	Round 61.9361 to 3 d.p.																															
7	$(-7) + (-4)$																															
8	Round 3096 to 1 s.f.																															
9	Letter at (-1, 1) <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr><td></td><td></td><td style="text-align: center;">y</td><td></td><td></td></tr> <tr><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td></tr> <tr><td>F</td><td>G</td><td>H</td><td>I</td><td>J</td></tr> <tr><td>K</td><td>L</td><td>M</td><td>N</td><td>P x</td></tr> <tr><td>Q</td><td>R</td><td>S</td><td>T</td><td>U</td></tr> <tr><td>V</td><td>W</td><td>X</td><td>Y</td><td>Z</td></tr> </table>			y			A	B	C	D	E	F	G	H	I	J	K	L	M	N	P x	Q	R	S	T	U	V	W	X	Y	Z	
		y																														
A	B	C	D	E																												
F	G	H	I	J																												
K	L	M	N	P x																												
Q	R	S	T	U																												
V	W	X	Y	Z																												
10	$7/5 = 35/\square$																															
<b>Total out of 10</b>																																

## WEEK 4 SESSION 1 - Answer as many questions as you can in 5 mins

### MENTAL STRATEGIES -

do these in your head

Q	Question	Answer
1	$3 + 2$	
2	$\square + 25 = 100$	
3	What is half of 8?	
4	$150 - 10$	
5	$191 + \square = 210$	
6	$97 = 60 + \square$	
7	$135 - 132$	
8	$5 \times 8 = 40$ , so $40 \div 5 = \square$	
9	Write 20:11 in 12 hour clock format	
10	07:52 is how many minutes after 07:06?	
<b>Total out of 10</b>		

### TIMESTABLES -

do these in your head

Q	Question	Answer
1	$2 \times 7 = \square$	
2	$6 \div 3 = \square$	
3	$3 \times \square = 21$	
4	$56 \div \square = 8$	
5	$10 \times 9 = \square$	
6	$30 \div 10 = \square$	
7	$\square \times 4 = 16$	
8	$\square \div 9 = 6$	
9	$10 \times 8 = \square$	
10	$90 \div 10 = \square$	
<b>Total out of 10</b>		

### KEY SKILLS - you may use written calculations

for these questions

Q	Question	Answer
1	What is $\frac{3}{9}$ of 54?	
2	$964 \times 9$	
3	$1444 - 982$	
4	$3.2 \times 8.25$	
5	$\frac{8}{10}$ as a decimal number	
6	$82.23 + 7.27$	
7	$36 \div (-6)$	
8	If $a = 1$ , $b = 3$ and $c = 4$ , what is the value of $4b^3$ ?	
9	$10 - (-9)$	
10	Is 5 a factor of 21?	
<b>Total out of 10</b>		

## WEEK 4 SESSION 2 - Answer as many questions as you can in 5 mins

### MENTAL STRATEGIES -

do these in your head

Q	Question	Answer
1	$2 + \square = 5$	
2	$54 + 46$	
3	Halve 6	
4	$184 - 10$	
5	$91 + \square = 150$	
6	$83 = 60 + \square$	
7	$931 - 926$	
8	$9 \times 5 = 45$ , so $45 \div 5 = \square$	
9	Write 8:13 am in 24 hour clock format	
10	From 2:46 am, how many minutes until 3:22 am?	
<b>Total out of 10</b>		

### TIMESTABLES -

do these in your head

Q	Question	Answer
1	$10 \times 10 = \square$	
2	$8 \div 8 = \square$	
3	$5 \times \square = 40$	
4	$20 \div \square = 5$	
5	$9 \times 8 = \square$	
6	$80 \div 8 = \square$	
7	$\square \times 6 = 18$	
8	$\square \div 7 = 10$	
9	$2 \times 8 = \square$	
10	$12 \div 6 = \square$	
<b>Total out of 10</b>		

### KEY SKILLS - you may use written calculations

for these questions

Q	Question	Answer
1	What is $\frac{1}{3}$ of 12?	
2	$6 \times 225$	
3	$6543 - 5498$	
4	$9.8 \times 4.8$	
5	100% as a decimal number	
6	$1.23 + 46.27$	
7	$(-24) \div (-3)$	
8	If $a = 7$ $b = 7$ and $c = 2$ , what is the value of $ac / 2b$ ?	
9	$(-3) - (-7)$	
10	What is the highest common factor of 23 and 20?	
<b>Total out of 10</b>		

## WEEK 5 SESSION 1 - Answer as many questions as you can in 5 mins

### MENTAL STRATEGIES -

do these in your head

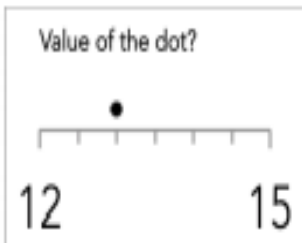
### TIMESTABLES -

do these in your head

**KEY SKILLS** – you may use written calculations for these questions

Q	Question	Answer
1	$\square + 9 = 10$	
2	What is double 6?	
3	Halve 24	
4	$143 + 60$	
5	$94 + 97$	
6	$41 + 10 = 41 + 9 + \square$	
7	$1 + 700$	
8	$31 + 47 = 30 + 40 + \square$	
9	What is double 56?	
10	What is half of 4?	
<b>Total out of 10</b>		

Q	Question	Answer
1	$7 \times 10 = \square$	
2	$21 \div 3 = \square$	
3	$3 \times \square = 18$	
4	$5 \div \square = 1$	
5	$1 \times 2 = \square$	
6	$30 \div 3 = \square$	
7	$\square \times 2 = 8$	
8	$\square \div 3 = 6$	
9	$3 \times 6 = \square$	
10	$63 \div 7 = \square$	
<b>Total out of 10</b>		

Q	Question	Answer
1	What is 25% of £190?	
2	$6146 \div 7$	
3	$4 + 5 \times 1$	
4	$462.2 \div 5$	
5	$1000 \times 0.64$	
6	$69.12 - 9.2$	
7	Write $35/49$ in its simplest form	
8	$10 - 10$	
9	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <p>Value of the dot?</p>  <p style="text-align: center;">12 <span style="margin-left: 100px;">15</span></p> </div>	
10	What is the lowest common multiple of 6 and 8?	
<b>Total out of 10</b>		

## WEEK 5 SESSION 2 - Answer as many questions as you can in 5 mins

### MENTAL STRATEGIES -

do these in your head

Q	Question	Answer
1	$\square + 5 = 10$	
2	What is double 7?	
3	Halve 57	
4	$93 + 30$	
5	$82 + 84$	
6	$87 + 11 = 87 + 3 + \square$	
7	$1 + 487$	
8	$14 + 40 = 14 + 40 + \square$	
9	What is double 79?	
10	What is half of 7?	
<b>Total out of 10</b>		

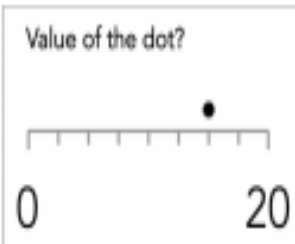
### TIMESTABLES -

do these in your head

Q	Question	Answer
1	$2 \times 2 = \square$	
2	$9 \div 3 = \square$	
3	$8 \times \square = 16$	
4	$35 \div \square = 5$	
5	$2 \times 1 = \square$	
6	$10 \div 2 = \square$	
7	$\square \times 6 = 48$	
8	$\square \div 8 = 6$	
9	$9 \times 3 = \square$	
10	$70 \div 7 = \square$	
<b>Total out of 10</b>		

### KEY SKILLS - you may use written calculations

for these questions

Q	Question	Answer
1	What is 45% of £140?	
2	$3996 \div 4$	
3	$5 + 10 \times 3$	
4	$7.474 \div 0.2$	
5	$0.939 \times 1000$	
6	$96.54 - 8.01$	
7	Simplify $2/18$	
8	Difference between -10 and 9	
9	<p>Value of the dot?</p>  <p>0 20</p>	
10	What is the lowest common multiple of 7 and 8?	
<b>Total out of 10</b>		

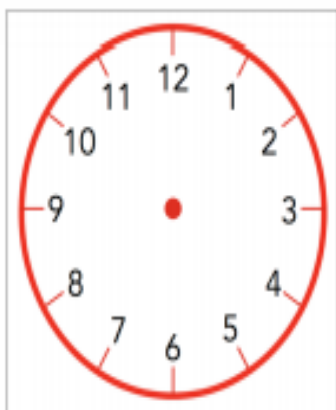
## WEEK 6 SESSION 1 - Answer as many questions as you can in 5 mins

**MENTAL STRATEGIES -**  
do these in your head

Q	Question	Answer
1	$17 + \square = 20$	
2	What is double 36?	
3	$89 + 10$	
4	$143 - 20$	
5	$5 = 4 + \square$	
6	$14 - 7 = 14 - 4 - \square$	
7	$56 + 56 = \square \times 56$	
8	Draw hands on the clock face showing 7:05 pm	
9	What is double 9?	
10	Halve 48	
<b>Total out of 10</b>		

**TIMESTABLES -**  
do these in your head

Q	Question	Answer
1	$5 \times 10 = \square$	
2	$18 \div 6 = \square$	
3	$9 \times \square = 63$	
4	$32 \div \square = 4$	
5	$5 \times 9 = \square$	
6	$3 \div 3 = \square$	
7	$\square \times 3 = 24$	
8	$\square \div 3 = 10$	
9	$1 \times 3 = \square$	
10	$10 \div 5 = \square$	
<b>Total out of 10</b>		



**KEY SKILLS -** you may use written calculations for these questions

Q	Question	Answer
1	What is the value of (-15) squared?	
2	$986 + 3175$	
3	$\sqrt{64} + 8 \div 8$	
4	Write 780026 in words. (Use the opposite page for your answer)	
5	$13.089 \div 1000$	
6	$(-1) \times (-6)$	
7	Round 6.5254 to 2 d.p.	
8	$10 + (-5)$	
9	Round 0.006435 to 1 s.f.	
10	Letter at (-2, -2)	
<pre>           y                     A B C D E         F G H I J         K L M N P x         Q R S T U         V W X Y Z                       x           </pre>		
<b>Total out of 10</b>		

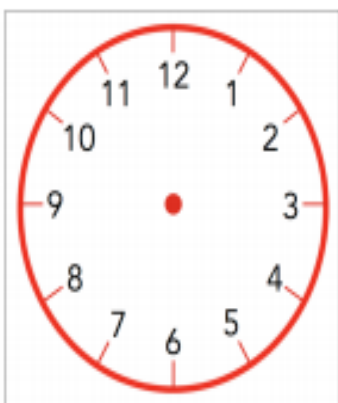
## WEEK 6 SESSION 2 - Answer as many questions as you can in 5 mins

**MENTAL STRATEGIES -**  
do these in your head

Q	Question	Answer
1	$8 + \square = 20$	
2	Double 49	
3	$69 + 10$	
4	$196 - 80$	
5	$6 = 3 + \square$	
6	$53 - 8 = 53 - 3 - \square$	
7	$9 = 9 \times \square$	
8	Draw hands on the clock face showing quarter to nine	
9	What is double 8?	
10	Halve 14	
<b>Total out of 10</b>		

**TIMESTABLES -**  
do these in your head

Q	Question	Answer
1	$8 \times 1 = \square$	
2	$28 \div 4 = \square$	
3	$2 \times \square = 6$	
4	$28 \div \square = 4$	
5	$4 \times 6 = \square$	
6	$6 \div 3 = \square$	
7	$\square \times 2 = 8$	
8	$\square \div 7 = 8$	
9	$8 \times 8 = \square$	
10	$80 \div 10 = \square$	
<b>Total out of 10</b>		



**KEY SKILLS -** you may use written calculations for these questions

Q	Question	Answer
1	What is the value of 15 squared?	
2	$3530 + 6819$	
3	$(8 - 2) \times 2$	
4	Write Twenty Four Thousand, Three Hundred in digits	
5	$43.537 \div 100$	
6	$(-8) \times 1$	
7	Round 22.7383 to 1 d.p.	
8	$2 + (-7)$	
9	Round 275 to 1 s.f.	
10	Letter at (2, 1)	
<pre>           y         A B C D E         F G H I J         K L M N P x         Q R S T U         V W X Y Z           </pre>		
<b>Total out of 10</b>		

# Section 2

# Primary Numeracy Skills



$$50 + 1000$$

$$18 \div 1$$



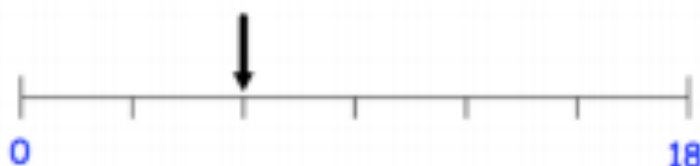
Put these cars in order of price, starting with the **lowest price**.

There are 110 people on a train.

At the next station, 60 people **get off the train** and 25 people **get on the train**.

How many people are on the train **now**?

What number is the arrow pointing to?



$$606 + 2,525$$

$$\frac{2}{7} + \frac{3}{7}$$

Round 3,541 to the nearest 100

Round 3,541 to the nearest 1,000



How many students are there in **total** in Year 4?

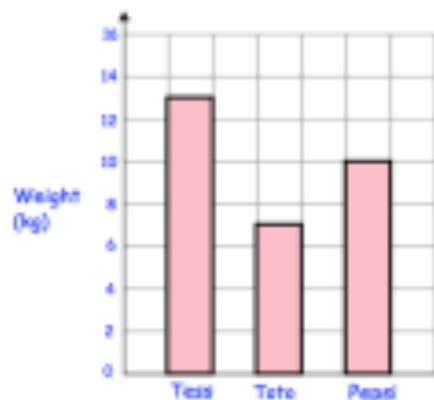
How many **more** Year 4 children than Year 6 children play a musical instrument?

50% of 180

$35 \times 21$

Shown are the weights of 3 puppies.

Work out the mean weight



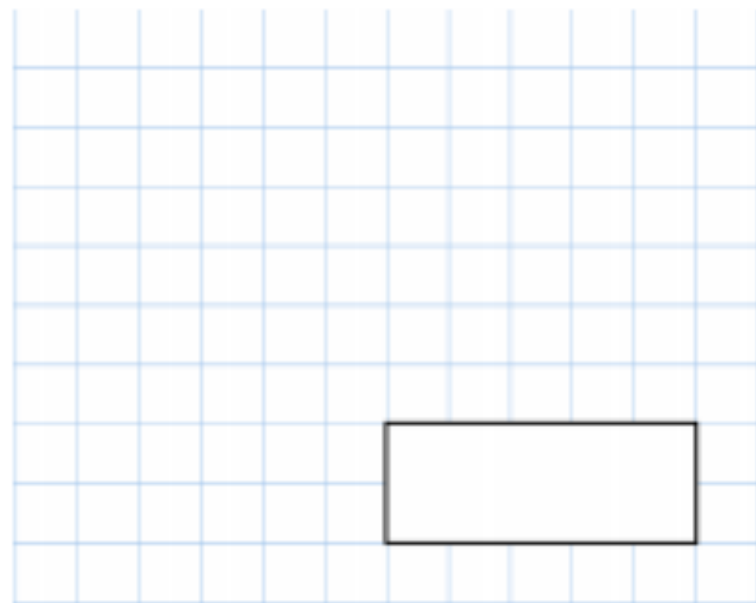
Here is a number written in Roman numerals

CXXIV

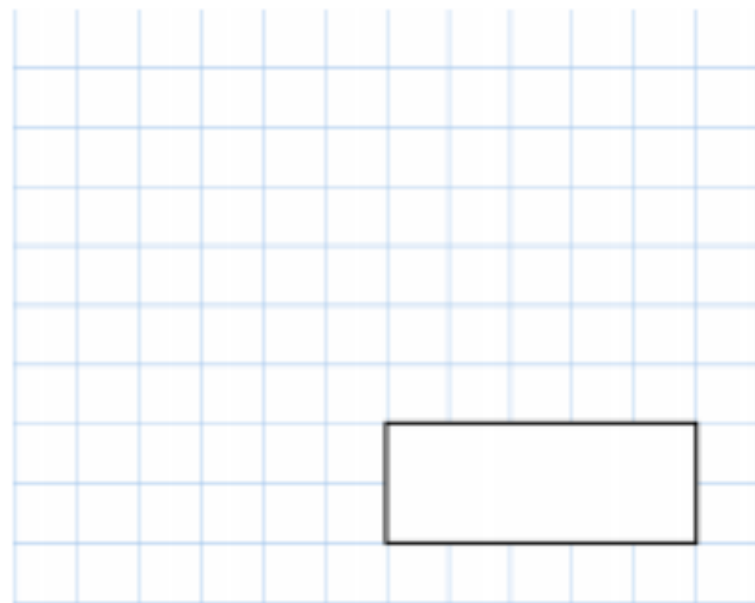
Write the number in figures

Write down three factors of 28 that are **not** factors of 20.

$$6 \times 6$$



$$125 - 50$$



Complete the tally chart

Shape	Tally	Frequency
Circle		
Pentagon		
Square		
Triangle		

What fraction of this shape is shaded?

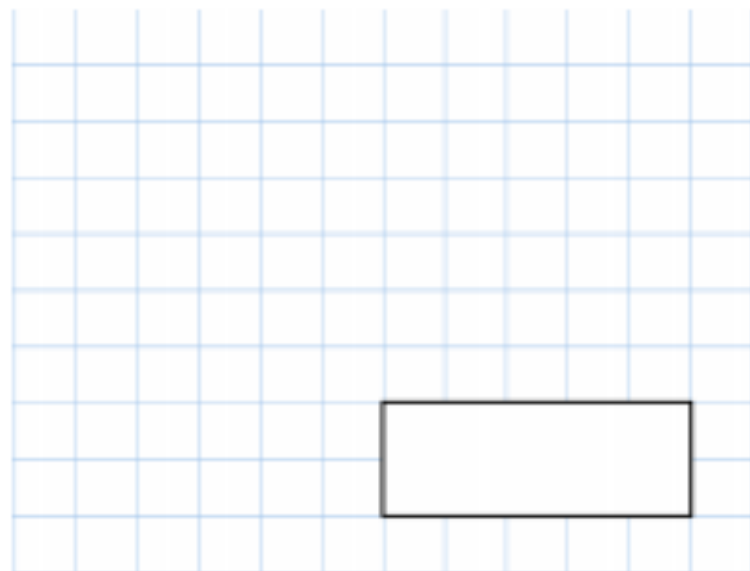


Mrs Williams has 80 sweets.

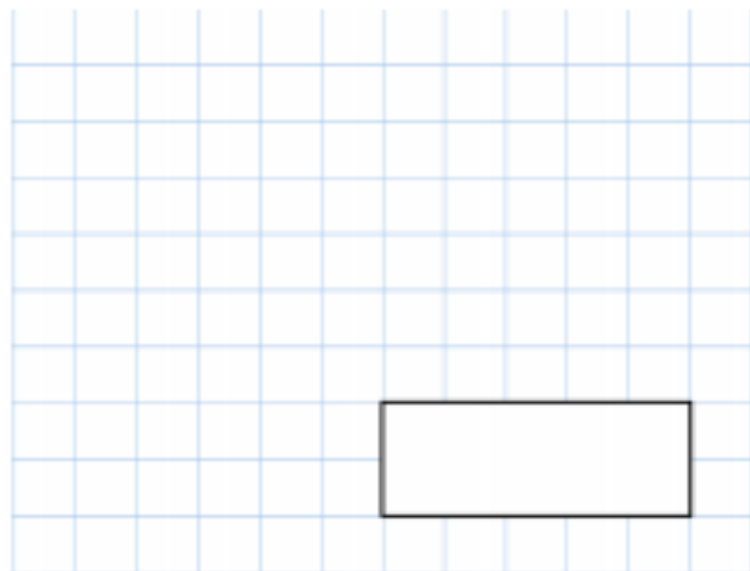
She gives 17 girls and 14 boys a sweet.

How many sweets are left?

$$425 - 170$$



$$8 \times 44$$

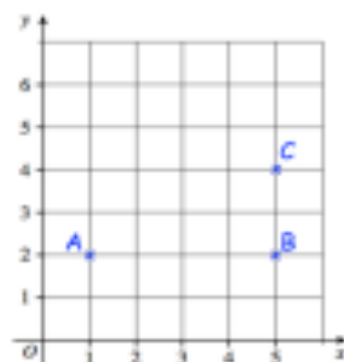


Arrange these numbers in order, starting with the largest

15,123    15,200    15,032    15,103

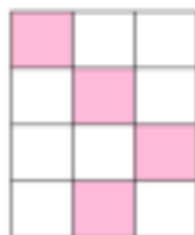
Three points are shown on a grid.  
ABCD is a rectangle.

Write down the coordinates of the point D

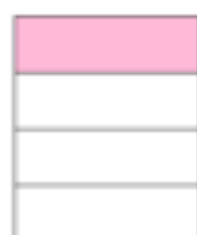


Two of the shapes have been shaded so that  $\frac{1}{3}$  of the shape is pink.

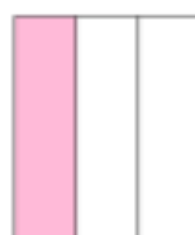
Which shape has **not** been shaded  $\frac{1}{3}$  pink?



Shape A



Shape B

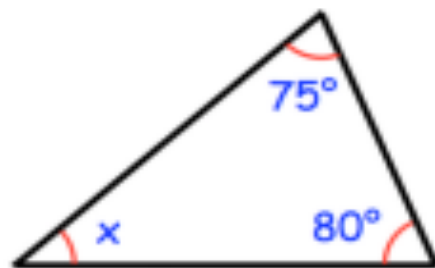


Shape C

$$3.7 + 1.015$$

$$\frac{1}{4} + \frac{1}{2}$$

Find the size of the missing angle



In each box, circle the number that is greater

$$1\frac{1}{2} \quad 1.3$$

$$2\frac{3}{4} \quad 2.8$$

$$1\frac{9}{100} \quad 1.1$$

$$4\frac{3}{5} \quad 4.5$$

A square number and a multiple of 3 have a total of 90.

What are the two numbers?

$$\boxed{\phantom{000}} + \boxed{\phantom{000}} = 90$$

square number

multiple of 3

# Section 3

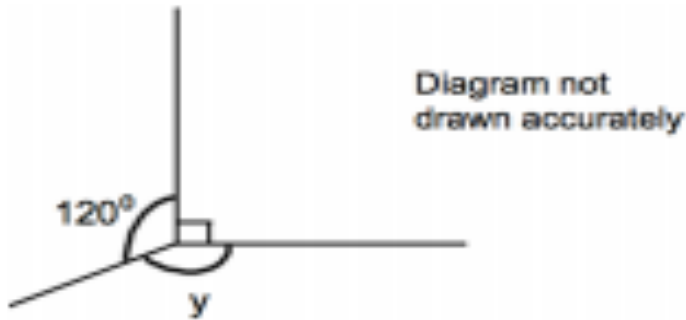
# Secondary Numeracy Skills

Write the number 1804 in words.

A carton of milk costs 57p

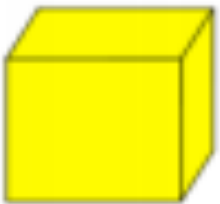


Find the cost of three cartons of milk



Find  $y$

Sketch the net of a cube

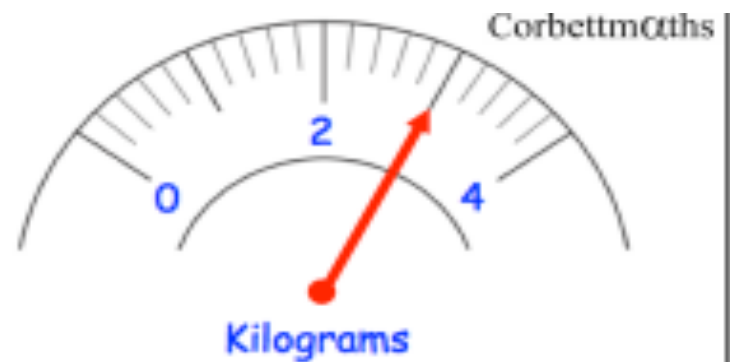


Calculate 50% of £3

Calculate 10% of £7



Martha is buying carrots.  
The scale shows the amount she buys.  
What amount of carrots does she buy?



Write the following numbers in order of size.

Start with the smallest number.

0.51   0.2   0.19   0.203   0.6



The time shown on the clock is 9:24am.

Write 9:24am as 24 hour time:

\_\_\_\_\_

Write 1:15pm as 24 hour time:

\_\_\_\_\_

#### Menu

Tea	£1.50
Coffee	£2.00
Flapjack	£2.50

Jack pays for **two coffees** and **two flapjacks**.

Altogether how much do they cost?



Max pays for one **tea**, one **coffee** and one **flapjack**.

He pays with a £10 note.

How much change should he get?

Anna has eleven **fifty pence** pieces.



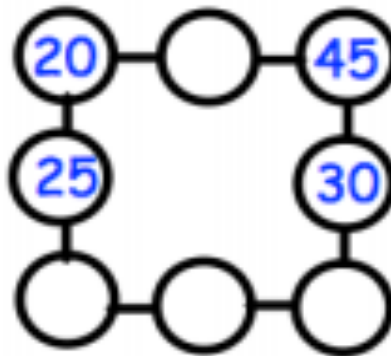
How much money does Anna have in total?

Draw a line parallel to the line AB.



In the diagram, three circles in a straight line **must add to 100**.

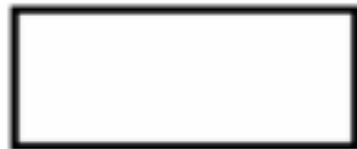
Write in the missing numbers.



Draw all the **lines of symmetry** on the square below



Draw all the **lines of symmetry** on the rectangle below



Multiply 29 by 7

The distances, in miles, between four towns are shown on the map.



Work out the distance between Foxville and Milton.



Look at the four digit cards above.

You can only use each card once.

Create the smallest possible two digit **odd** number.

--	--

A television costs £275  
Work out the cost of two televisions



Work out the perimeter of this rectangle.



Complete the tally chart

Blue Blue Red Green White

Blue White Red Red Red

Red Red Green Blue

Colour	Tally	Frequency
Blue		
White		
Red		
Green		

$$16 \times 10$$

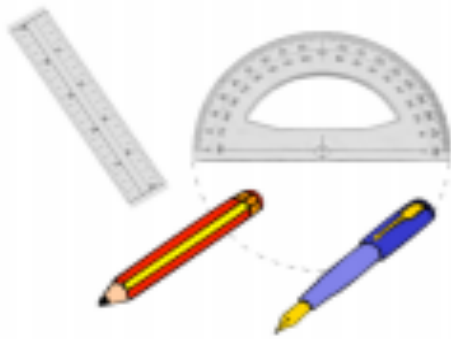
$$91 \times 100$$

$$7.2 \times 10$$

$$0.6 \times 100$$

Draw a kite

Draw a parallelogram



A ruler costs 65p  
 A protractor costs 72p  
 A pencil costs 19p  
 A pen costs 26p

James buys one ruler, one protractor, one pencil and one pen.

How much change should he receive from £5?

Work out the total cost.

Simplify

$$\frac{15}{20}$$

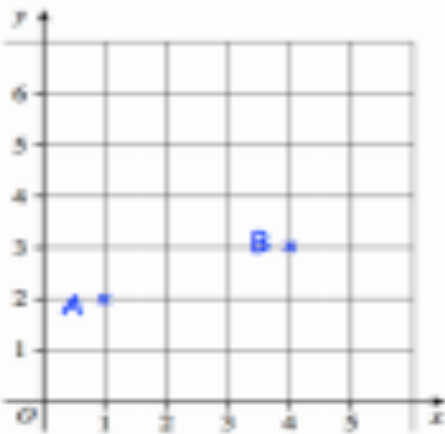


Name this solid



Name this solid

Write down the value of the **6** in the number 17629.



Write down the coordinates of the point A

Write down the coordinates of the point B

Work out 8 squared.

Work out 12 squared.

Mary has £1.20

David has £2

How much money should David give Mary so they have the same amount?

# Section 4

## Challenge

1. How many minutes is it from 23:35 today to 01:15 tomorrow?

A 100

B 110

C 120

D 130

E 140

2. Which of these is equal to  $(0.1 + 0.2 + 0.3 - 0.4) \div 0.5$ ?

A 0.01

B 0.02

C 0.04

D 0.1

E 0.4

3. Sam has eaten three-quarters of the grapes.

What is the ratio of the number of grapes that remain to the number Sam has eaten?

A 1 : 3

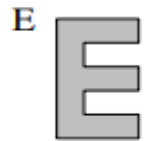
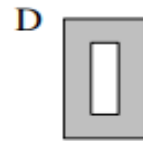
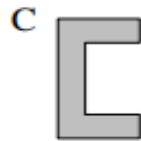
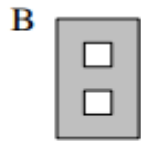
B 1 : 4

C 1 : 5

D 1 : 6

E 1 : 7

4. Which of the following five shapes can be cut into four pieces by a single straight cut?





5. On Aoife's 16th birthday, Buster was three times her age. On Aoife's 21st birthday, how old was Buster?

A 32

B 48

C 53

D 63

E 64

6. Which of these is closest to 7?

A 7.09

B 6.918

C 7.17

D 6.7

E 7.085

# Section 5

## Numeracy Ninja Answers


 Week 1 Session 1

## Mental Strategies Answers

Q	Question	Answer
1	$2 + 3$	5
2	$89 + 11$	100
3	What is half of 6?	3
4	$125 - 10$	115
5	$177 + \square = 270$	93
6	$53 = 23 + \square$	30
7	$805 - 804$	1
8	$4 \times 1 = 4$ , so $4 \div 4 = \square$	1


 Week 1 Session 1

9	Write 20:12 in 12 hour clock format	8:12 pm
10	9:37 pm is how many minutes after 9:08 pm?	29

## Timestables Answers

Q	Question	Answer
1	$2 \times 9 = \square$	18
2	$24 \div 3 = \square$	8
3	$10 \times \square = 80$	8
4	$6 \div \square = 3$	2
5	$1 \times 2 = \square$	2
6	$28 \div 7 = \square$	4


 Week 1 Session 1

7	$\square \times 6 = 54$	9
8	$\square \div 2 = 5$	10
9	$3 \times 9 = \square$	27
10	$4 \div 4 = \square$	1

## Key Skills Answers

Q	Question	Answer
1	$61 \times 31$	1891
2	$657 - 382$	275
3	$7.2 \times 94.2$	678.24
4	0.7 as a fraction	$\frac{7}{10}$


 Week 1 Session 1

5	$46.15 + 5.08$	51.23
6	$(-40) \div (-4)$	10
7	If $a = 4$ , $b = 3$ and $c = 1$ , what is the value of $3a - b^2$ ?	3
8	$3 - (-5)$	8
9	What is the highest common factor of 12 and 4?	4
10	What is the value of 13 squared?	169



## Week 1 Session 2

### Mental Strategies Answers

Q	Question	Answer
1	$\square + 4 = 5$	1
2	$38 + 62$	100
3	What is half of 2?	1
4	$128 - 10$	118
5	$120 + \square = 210$	90
6	$124 = 90 + \square$	34
7	$610 - 606$	4
8	$1 \times 7 = 7$ , so $7 \div 1 = \square$	7



## Week 1 Session 2

9	Write 11:07 am in 24 hour clock format	11:07
10	From 3:01 am, how many minutes until 3:19 am?	18

### Timestables Answers

Q	Question	Answer
1	$2 \times 9 = \square$	18
2	$30 \div 5 = \square$	6
3	$10 \times \square = 100$	10
4	$54 \div \square = 6$	9
5	$10 \times 7 = \square$	70
6	$40 \div 10 = \square$	4



## Week 1 Session 2

7	$\square \times 5 = 15$	3
8	$\square \div 8 = 8$	64
9	$5 \times 1 = \square$	5
10	$24 \div 3 = \square$	8

### Key Skills Answers

Q	Question	Answer
1	$81 \times 98$	7938
2	$1596 - 837$	759
3	$9.1 \times 13.13$	119.483
4	20% as a fraction	20/100 or 1/5



## Week 1 Session 2

5	$4.98 + 15.59$	20.57
6	$(-18) \div 3$	-6
7	If $a = 7$ , $b = 5$ and $c = 3$ , what is the value of $3b^2$ ?	75
8	$(-1) - (-4)$	3
9	Is 2 a factor of 12?	Yes
10	What is the positive value of $\sqrt[3]{64}$ ?	4



## Week 2 Session 1

### Mental Strategies Answers

Q	Question	Answer
1	$\square + 6 = 10$	4
2	What is double 5?	10
3	Halve 63	31.5
4	$26 + 30$	56
5	$98 + 99$	197
6	$22 + 10 = 22 + 8 + \square$	2
7	$3 + 223$	226



## Week 2 Session 1

8	$20 + 61 = 20 + 60 + \square$	1
9	$\square + 3 = 5$	2
10	$\square + 2 = 20$	18



### Timestables Answers

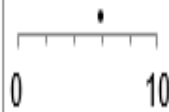
Q	Question	Answer
1	$9 \times 5 = \square$	45
2	$10 \div 2 = \square$	5
3	$8 \times \square = 8$	1
4	$16 \div \square = 4$	4



## Week 2 Session 1

5	$8 \times 4 = \square$	32
6	$15 \div 3 = \square$	5
7	$\square \times 2 = 12$	6
8	$\square \div 7 = 1$	7
9	$5 \times 8 = \square$	40
10	$14 \div 2 = \square$	7

Value of the dot?



### Key Skills Answers

Q	Question	Answer
---	----------	--------



## Week 2 Session 1

1	$3905 \div 5$	781
2	$7 + 25 \div 5$	12
3	$2.013 \div 0.1$	20.13
4	$2.26 \times 1000$	2260
5	$34 - 0.74$	33.26
6	Write $56/72$ in its simplest form	$7/9$
7	Difference between 4 and $-4$	8
8	See number line	6
9	What is the lowest common multiple of 4 and 5?	20
10	What is the cube root of 27?	3


 Week 2 Session 2

## Mental Strategies Answers

Q	Question	Answer
1	$6 + \square = 10$	4
2	What is double 7?	14
3	Halve 31	15.5
4	$103 + 60$	163
5	$76 + 77$	153
6	$43 + 9 = 43 + 7 + \square$	2
7	$5 + 142$	147


 Week 2 Session 2

8	$95 + 13 = 90 + 10 + \square$	8
9	$3 + 2$	5
10	$3 + \square = 20$	17

## Timestables Answers

Q	Question	Answer
1	$9 \times 3 = \square$	27
2	$63 \div 9 = \square$	7
3	$10 \times \square = 20$	2
4	$30 \div \square = 10$	3

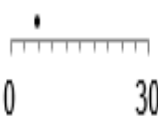

 Week 2 Session 2

5	$10 \times 8 = \square$	80
6	$64 \div 8 = \square$	8
7	$\square \times 2 = 16$	8
8	$\square \div 7 = 6$	42
9	$4 \times 3 = \square$	12
10	$72 \div 9 = \square$	8

## Key Skills Answers

Q	Question	Answer
---	----------	--------

Value of the dot?



 Week 2 Session 2

1	$608 \div 4$	152
2	$1 + 4 \times 2$	9
3	$42.4 \div 8$	5.3
4	$0.86 \times 1000$	860
5	$27.39 - 2.59$	24.8
6	Write $72/80$ in its simplest form	$9/10$
7	Which is the lowest number, 2 or $-10$ ?	$-10$
8	See number line	6
9	What is the lowest common multiple of 3 and 4?	12
10	What is the value of $(-5)$ cubed?	$-125$



## Week 3 Session 1



### Mental Strategies Answers

Q	Question	Answer
1	$\square + 13 = 20$	7
2	Double 96	192
3	$79 + 10$	89
4	$120 - 80$	40
5	$8 = 7 + \square$	1
6	$13 - 10 = 13 - 3 - \square$	7



## Week 3 Session 1

7	$85 + 85 = 85 \times \square$	2
8	What is the time on the clock?	4:00 am
9	$8 + 2$	10
10	$81 + \square = 100$	19

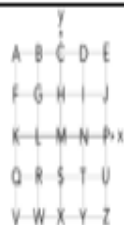
### Timestables Answers

Q	Question	Answer
1	$6 \times 6 = \square$	36
2	$3 \div 3 = \square$	1
3	$4 \times \square = 32$	8
4	$4 \div \square = 4$	1



## Week 3 Session 1

5	$5 \times 4 = \square$	20
6	$45 \div 9 = \square$	5
7	$\square \times 7 = 28$	4
8	$\square \div 6 = 9$	54
9	$4 \times 5 = \square$	20
10	$48 \div 8 = \square$	6



### Key Skills Answers



## Week 3 Session 1

Q	Question	Answer
1	$2757 + 5432$	8189
2	$4^2 + 2 \times 4$	24
3	Write Four Thousand, Three Hundred and Twenty in digits	4320
4	$5.94 \div 10$	0.594
5	$1 \times (-8)$	-8
6	Round 0.7475 to 1 d.p.	0.7
7	$1 + (-9)$	-8
8	Round 0.4559 to 2 s.f.	0.46
9	Letter at $(-2, -2)$	V

## Mental Strategies Answers



Q	Question	Answer
1	$20 + \square = 20$	0
2	Double 53	106
3	$51 + 10$	61
4	$100 - 10$	90
5	$8 = 4 + \square$	4
6	$70 - 11 = 70 - 10 - \square$	1

7  $7 + 7 + 7 + 7 = \square \times 7$

4

8 What is the time on the clock?

3:20 pm

9  $1 + \square = 10$

9

10  $66 + 34$

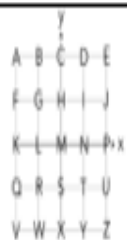
100

## Timestables Answers

Q	Question	Answer
1	$2 \times 3 = \square$	6
2	$7 \div 1 = \square$	7
3	$8 \times \square = 80$	10
4	$16 \div \square = 4$	4

## Week 3 Session 2

5	$9 \times 5 = \square$	45
6	$35 \div 7 = \square$	5
7	$\square \times 9 = 81$	9
8	$\square \div 10 = 2$	20
9	$8 \times 2 = \square$	16
10	$63 \div 9 = \square$	7



## Key Skills Answers

Q	Question	Answer
---	----------	--------

## Week 3 Session 2

1	$271 + 8501$	8772
2	$(8 - 2)^2 + 3 \times 4$	48
3	Write 4335000 in words. (Use the opposite page for your answer)	Four Million, Three Hundred and Thirty Five Thousand
4	$0.8 \div 100$	0.008
5	$(-1) \times (-9)$	9
6	Round 61.9361 to 3 d.p.	61.936
7	$(-7) + (-4)$	-11
8	Round 3096 to 1 s.f.	3000
9	Letter at $(-1, 1)$	G
10	$7/5 = 35/\square$	25




 Week 4 Session 1

## Mental Strategies Answers

Q	Question	Answer
1	$3 + 2$	5
2	$\square + 25 = 100$	75
3	What is half of 8?	4
4	$150 - 10$	140
5	$191 + \square = 210$	19
6	$97 = 60 + \square$	37
7	$135 - 132$	3
8	$5 \times 8 = 40$ , so $40 \div 5 = \square$	8


 Week 4 Session 1

9	Write 20:11 in 12 hour clock format	8:11 pm
10	07:52 is how many minutes after 07:06?	46

## Timestables Answers

Q	Question	Answer
1	$2 \times 7 = \square$	14
2	$6 \div 3 = \square$	2
3	$3 \times \square = 21$	7
4	$56 \div \square = 8$	7
5	$10 \times 9 = \square$	90
6	$30 \div 10 = \square$	3


 Week 4 Session 1

7	$\square \times 4 = 16$	4
8	$\square \div 9 = 6$	54
9	$10 \times 8 = \square$	80
10	$90 \div 10 = \square$	9

## Key Skills Answers

Q	Question	Answer
1	What is $\frac{3}{9}$ of 54?	18
2	$964 \times 9$	8676
3	$1444 - 982$	462
4	$3.2 \times 8.25$	26.4


 Week 4 Session 1

5	$\frac{8}{10}$ as a decimal number	0.8
6	$82.23 + 7.27$	89.5
7	$36 \div (-6)$	-6
8	If $a = 1$ , $b = 3$ and $c = 4$ , what is the value of $4b^2$ ?	108
9	$10 - (-9)$	19
10	Is 5 a factor of 21?	No


 Week 4 Session 2

## Mental Strategies Answers

Q	Question	Answer
1	$2 + \square = 5$	3
2	$54 + 46$	100
3	Halve 6	3
4	$184 - 10$	174
5	$91 + \square = 150$	59
6	$83 = 60 + \square$	23
7	$931 - 926$	5
8	$9 \times 5 = 45$ , so $45 \div 5 = \square$	9


 Week 4 Session 2

9	Write 8:13 am in 24 hour clock format	08:13
10	From 2:46 am, how many minutes until 3:22 am?	36

## Timestables Answers

Q	Question	Answer
1	$10 \times 10 = \square$	100
2	$8 \div 8 = \square$	1
3	$5 \times \square = 40$	8
4	$20 \div \square = 5$	4
5	$9 \times 8 = \square$	72
6	$80 \div 8 = \square$	10


 Week 4 Session 2

7	$\square \times 6 = 18$	3
8	$\square \div 7 = 10$	70
9	$2 \times 8 = \square$	16
10	$12 \div 6 = \square$	2

## Key Skills Answers

Q	Question	Answer
1	What is $\frac{1}{3}$ of 12?	4
2	$6 \times 225$	1350
3	$6543 - 5498$	1045
4	$9.8 \times 4.8$	47.04


 Week 4 Session 2

5	100% as a decimal number	1
6	$1.23 + 46.27$	47.5
7	$(-24) \div (-3)$	8
8	If $a = 7$ , $b = 7$ and $c = 2$ , what is the value of $ac / 2b$ ?	1
9	$(-3) - (-7)$	4
10	What is the highest common factor of 23 and 20?	1



## Week 5 Session 1

### Mental Strategies Answers

Q	Question	Answer
1	$\square + 9 = 10$	1
2	What is double 6?	12
3	Halve 24	12
4	$143 + 60$	203
5	$94 + 97$	191
6	$41 + 10 = 41 + 9 + \square$	1
7	$1 + 700$	701



## Week 5 Session 1

8	$31 + 47 = 30 + 40 + \square$	8
9	What is double 56?	112
10	What is half of 4?	2

### Timestables Answers

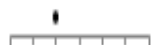
Q	Question	Answer
1	$7 \times 10 = \square$	70
2	$21 \div 3 = \square$	7
3	$3 \times \square = 18$	6
4	$5 \div \square = 1$	5



## Week 5 Session 1

5	$1 \times 2 = \square$	2
6	$30 \div 3 = \square$	10
7	$\square \times 2 = 8$	4
8	$\square \div 3 = 6$	18
9	$3 \times 6 = \square$	18
10	$63 \div 7 = \square$	9

Value of the dot?



12                      15

### Key Skills Answers



## Week 5 Session 1

1	What is 25% of £190?	£47.50
2	$6146 \div 7$	878
3	$4 + 5 \times 1$	9
4	$462.2 \div 5$	92.44
5	$1000 \times 0.64$	640
6	$69.12 - 9.2$	59.92
7	Write $35/49$ in its simplest form	$5/7$
8	$10 - 10$	0
9	See number line	13
10	What is the lowest common multiple of 6 and 8?	24


 Week 5 Session 2

## Mental Strategies Answers

Q	Question	Answer
1	$\square + 5 = 10$	5
2	What is double 7?	14
3	Halve 57	28.5
4	$93 + 30$	123
5	$82 + 84$	166
6	$87 + 11 = 87 + 3 + \square$	8
7	$1 + 487$	488


 Week 5 Session 2

8	$14 + 40 = 14 + 40 + \square$	0
9	What is double 79?	158
10	What is half of 7?	3.5

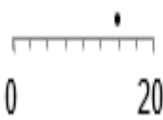
## Timestables Answers

Q	Question	Answer
1	$2 \times 2 = \square$	4
2	$9 \div 3 = \square$	3
3	$8 \times \square = 16$	2
4	$35 \div \square = 5$	7


 Week 5 Session 2

5	$2 \times 1 = \square$	2
6	$10 \div 2 = \square$	5
7	$\square \times 6 = 48$	8
8	$\square \div 8 = 6$	48
9	$9 \times 3 = \square$	27
10	$70 \div 7 = \square$	10

Miss at the dot?



## Key Skills Answers


 Week 5 Session 2

1	What is 45% of £140?	£63
2	$3996 \div 4$	999
3	$5 + 10 \times 3$	35
4	$7.474 \div 0.2$	37.37
5	$0.939 \times 1000$	939
6	$96.54 - 8.01$	88.53
7	Simplify $2/18$	$1/9$
8	Difference between -10 and 9	19
9	See number line	15
10	What is the lowest common multiple of 7 and 8?	56



## Week 6 Session 1



## Mental Strategies Answers

Q	Question	Answer
1	$17 + \square = 20$	3
2	What is double 36?	72
3	$89 + 10$	99
4	$143 - 20$	123
5	$5 = 4 + \square$	1
6	$14 - 7 = 14 - 4 - \square$	3



## Week 6 Session 1

7	$56 + 56 = \square \times 56$	2
8	Draw hands on the clock face showing 7:05 pm	See clock above
9	What is double 9?	18
10	Halve 48	24

## Timestables Answers

Q	Question	Answer
1	$5 \times 10 = \square$	50
2	$18 \div 6 = \square$	3
3	$9 \times \square = 63$	7
4	$32 \div \square = 4$	8



## Week 6 Session 1

5	$5 \times 9 = \square$	45
6	$3 \div 3 = \square$	1
7	$\square \times 3 = 24$	8
8	$\square \div 3 = 10$	30
9	$1 \times 3 = \square$	3
10	$10 \div 5 = \square$	2



## Key Skills Answers



## Week 6 Session 1

Q	Question	Answer
1	What is the value of $(-15)$ squared?	225
2	$986 + 3175$	4161
3	$\sqrt{64} + 8 \div 8$	9
4	Write 780026 in words. (Use the opposite page for your answer)	Seven Hundred and Eighty Thousand and Twenty Six
5	$13.089 \div 1000$	0.013089
6	$(-1) \times (-6)$	6
7	Round 6.5254 to 2 d.p.	6.53
8	$10 + (-5)$	5
9	Round 0.006435 to 1 s.f.	0.006


 Week 6 Session 2


## Mental Strategies Answers

Q	Question	Answer
1	$8 + \square = 20$	12
2	Double 49	98
3	$69 + 10$	79
4	$196 - 80$	116
5	$6 = 3 + \square$	3
6	$53 - 8 = 53 - 3 - \square$	5


 Week 6 Session 2

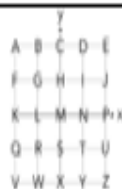
7	$9 = 9 \times \square$	1
8	Draw hands on the clock face showing quarter to nine	See clock above
9	What is double 8?	16
10	Halve 14	7

## Timestables Answers

Q	Question	Answer
1	$8 \times 1 = \square$	8
2	$28 \div 4 = \square$	7
3	$2 \times \square = 6$	3
4	$28 \div \square = 4$	7


 Week 6 Session 2

5	$4 \times 6 = \square$	24
6	$6 \div 3 = \square$	2
7	$\square \times 2 = 8$	4
8	$\square \div 7 = 8$	56
9	$8 \times 8 = \square$	64
10	$80 \div 10 = \square$	8



## Key Skills Answers


Q	Question	Answer
---	----------	--------


 Week 6 Session 2

1	What is the value of 15 squared?	225
2	$3530 + 6819$	10349
3	$(8 - 2) \times 2$	12
4	Write Twenty Four Thousand, Three Hundred in digits	24300
5	$43.537 \div 100$	0.43537
6	$(-8) \times 1$	-8
7	Round 22.7383 to 1 d.p.	22.7
8	$2 + (-7)$	-5
9	Round 275 to 1 s.f.	300
10	Letter at (2, 1)	J

# Section 6

## Challenge Answers

1. **A** It is 25 minutes from 23:35 to midnight and then another 75 minutes from midnight until 01:15. So the required number of minutes is  $25 + 75 = 100$ .
2. **E** Note that  $(0.1 + 0.2 + 0.3 - 0.4) \div 0.5 = (0.6 - 0.4) \div 0.5 = 0.2 \div 0.5 = 2 \div 5 = 0.4$ .
3. **A** Sam has eaten three-quarters of the grapes. So one-quarter of the grapes remain.  
Therefore the required ratio is  $\frac{1}{4} : \frac{3}{4} = 1 : 3$ .
4. **E** The greatest number of pieces into which figures A to D inclusive can be cut by a single straight cut are 3, 2, 3 and 2 respectively. The diagram shows how figure E may be cut into four different pieces by a single cut. 
5. **C** On Aoife's 16th birthday, Buster was three times her age, that is 48. It is then five years until Aoife's 21st birthday, so Buster's age at that time was  $48 + 5 = 53$ .
6. **B** Note that  $7.09 - 7 = 0.09$ ;  $7 - 6.918 = 0.082$ ;  $7.17 - 7 = 0.17$ ;  $7 - 6.7 = 0.3$  and  $7.085 - 7 = 0.085$ .  
So, of the five options, 6.918 is nearest to 7.



# Section 7

## For Notes/Working





