LEVEL 3

Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

N1 Place Value

1) Put the following numbers in the place value table.

a) 2415
b) 607
c) 9380
d) 2004

1000 Thousands	100 Hundreds	10 Tens	1 Units

2) Write the following numbers in figures.

a) six hundred and sixty seven
b) two thousand one hundred and fifty six
c) nine hundred and fourteen
d) four thousand and seventy one

3) Write the following numbers in words.

a) 5432
b) 811
c) 3620
d) 9090

4) a) What is the value of the 2 in the number 1250?

b) What is the value of the 6 in the number 6924?

Level 3

N1 ✓	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

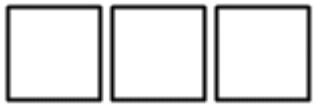
N1 Just For Fun

1) Match the words with the correct numbers.

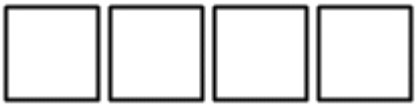
twenty seven	2007
two hundred and seven	27
two thousand and seven	2070
two thousand and seventy	207

2) Here are four number cards.

a) What is the **biggest three digit** number you can make with these cards?



b) What is the **biggest even number** you can make with all four cards?



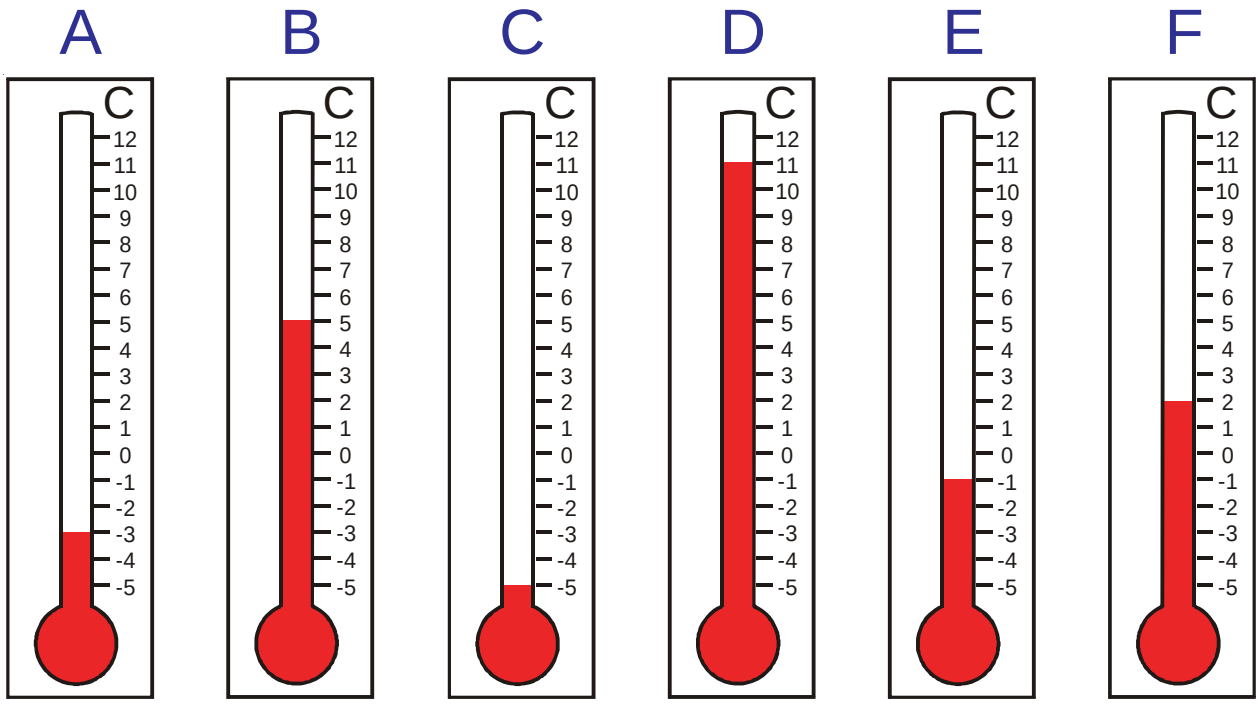
3) a) Write a whole number that is bigger than **one thousand** but smaller than **one thousand one hundred**.

b) Write the number **eleven thousand eleven hundred and eleven**.

Level 3

N1 ✓	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

N2 Negative Numbers



The thermometers A to F show the temperature at 3:00 A.M. in six different cities.
Use them to fill in the table below.
The first one has been done for you.

Thermometer	Temperature at 3.00 A.M	Temperature change over next five hours	Temperature at 8.00 A.M.
A	-3 °C	rises 8 °C	5 °C
B		falls 6 °C	
C		rises 3 °C	
D			-4 °C
E		rises 8.5 °C	
F			-4.5 °C

Level 3

N1	N2 ✓	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

N2 Just For Fun

1) Place these numbers in order of size, smallest to largest.

   a) 6, -1, 2, 5

   b) 4, 7, -5, 3, -2

   c) -1, -4, 0, 3, 9, -2

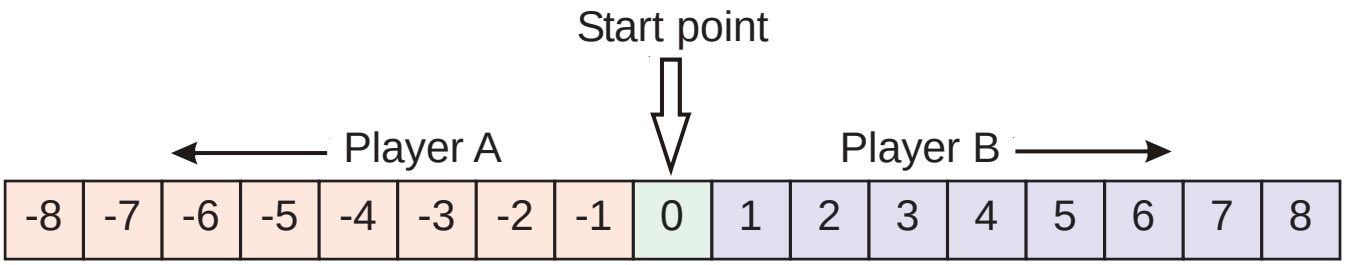
   d) 1, -3, 4, -6, 8, -9, -4

   e) -8, -4, -10, -6, -3, -7, -12

   f) 6, 7.5, -3.5, -4, 8.5, -5.5, -2.5, -3

2) a) What is special about the temperature 100 °C?

   b) What is special about the temperature 0 °C?



3) Place a counter on 0.

   Player A and B take turns in rolling a dice.

   Whatever scores player A gets, he/she always moves this many squares to the left.

   Whatever scores player B gets, he/she always moves this many squares to the right.

   Player A wins if he/she needs to move to a square which is less than -8.

   Player B wins if he/she needs to move to a square which is more than 8.

Level 3

N1	N2 ✓	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

N3 Introduction to Fractions

1) Find three equivalent fractions to each of the following:

a) $\frac{1}{3}$ b) $\frac{1}{4}$ c) $\frac{1}{5}$

d) $\frac{2}{5}$ e) $\frac{3}{4}$ f) $\frac{5}{8}$

2) Fill in the missing number in each of these equivalent fractions.

a) $\frac{2}{3} = \frac{\square}{9}$ b) $\frac{1}{5} = \frac{\square}{20}$ c) $\frac{3}{11} = \frac{\square}{22}$

d) $\frac{1}{3} = \frac{5}{\square}$ e) $\frac{2}{7} = \frac{10}{\square}$ f) $\frac{4}{9} = \frac{8}{\square}$

g) $\frac{2}{5} = \frac{\square}{50}$ h) $\frac{5}{7} = \frac{\square}{42}$ i) $\frac{9}{10} = \frac{81}{\square}$

3) Complete the following equivalent fraction series.

a) $\frac{1}{2} = \frac{2}{\square} = \frac{\square}{6} = \frac{5}{\square} = \frac{\square}{20} = \frac{50}{\square}$

b) $\frac{3}{5} = \frac{6}{\square} = \frac{\square}{15} = \frac{12}{\square} = \frac{\square}{50} = \frac{300}{\square}$

Level 3

N1	N2	N3 ✓	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

N3 Just For Fun

1) Here are six number cards.

2	4	6	8	10	12

a) Choose two of these six cards to make a fraction that is equivalent to $\frac{1}{6}$.

$\frac{\square}{\square}$

b) Choose two of these six cards to make a fraction that is equivalent to $\frac{12}{16}$.

$\frac{\square}{\square}$

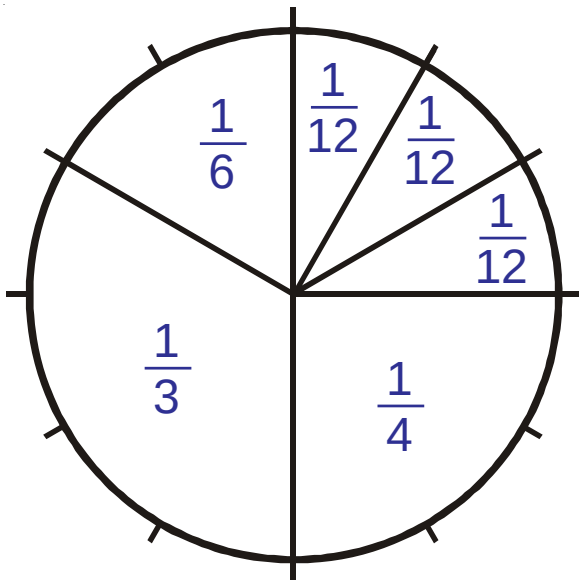
2) Use the diagram below to help you fill in the missing numbers.

a) $\frac{1}{3} = \frac{1}{4} + \frac{\square}{\square}$

b) $\frac{1}{6} = \frac{\square}{\square} - \frac{1}{12}$

c) $\frac{1}{6} + \frac{2}{12} = \frac{\square}{\square}$

d) $\frac{1}{3} + \frac{1}{6} = \frac{1}{4} + \frac{\square}{\square}$



Level 3

N1	N2	N3 ✓	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

N4 Money

1) Write the following amounts of money using a £ sign and numbers.

   a) Three pounds and thirty seven pence.

   b) Twenty four pounds and fifty pence.

   c) Two hundred and five pounds.

   d) Nine pounds and sixty pence.

   e) Nine pounds and six pence.

   f) Forty eight pence.

2) Write the following amounts of money in words.

   a) £2.78

   b) £6.07

   c) £5.40

   d) £0.24

3) Work out the following on a calculator and write the answers correctly:

   a) £115.23 ÷ 23

   b) £100.80 ÷ 14

   c) 71p × 10

   d) £6.40 – £3.83 + £2.10

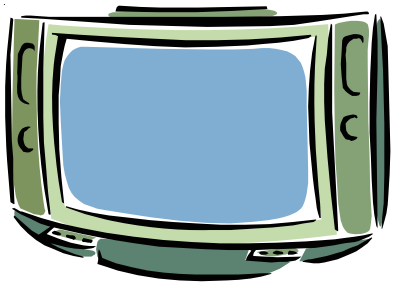
   e) £14.83 + £6.17

Level 3

N1	N2	N3	N4 ✓	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

N4 Just For Fun

Three men went into a second-hand shop to buy a television.



It was priced in the window at £30.

Each of them handed over £10 to the shop assistant.

As the assistant opened the till, the manager had a quiet word with him, “that TV is in the sale and is only £25 now, you will have to give them £5 back.”

The assistant was very lazy and couldn’t be bothered to count out the right change for each man.

Instead, he took 5 £1 coins out of the till.

He put two of them in his own pocket and gave each man £1 back.

Here’s the problem:

The men have now paid £9 each for the TV.

The assistant has kept £2 for himself.

3 × £9 = £27.

£27 + £2 = £29.

But £30 was handed over in the first place.

WHERE IS THE MISSING £1?

Level 3

N1	N2	N3	N4 ✓	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

C1 Mental Addition

For each set of questions, time how long it takes to get the answers.
You must work out the answers in your head - *you can't do any working on paper.*

Set A

1) 23 + 35
2) 17 + 13
3) 45 + 46
4) 38 + 44
5) 71 + 54
6) 38 + 46
7) 27 + 68
8) 64 + 77
9) 64 + 99
10) 87 + 96

Set B

1) 42 + 56
2) 23 + 56
3) 37 + 25
4) 68 + 26
5) 83 + 65
6) 59 + 37
7) 42 + 39
8) 57 + 68
9) 99 + 48
10) 68 + 94

Set C

1) 62 + 24
2) 38 + 22
3) 17 + 34
4) 52 + 29
5) 82 + 63
6) 28 + 36
7) 88 + 17
8) 67 + 56
9) 42 + 98
10) 78 + 93

For any set of questions:

45 seconds or less:	Maths teacher standard
46 to 89 seconds:	Extremely fast
90 to 149 seconds:	Fast
150 to 209 seconds:	Reasonable
210 seconds or more:	A bit more practise needed

Level 3

N1	N2	N3	N4	C1 ✓	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

C1 Just For Fun

This is a game for two people.

The player who goes first will say either 1 or 2, it is their choice.

The other player must now add on either 1 or 2 and say what the total is.

The first player now adds on 1 or 2 and says what the total is.

The game continues like this (always adding 1 or 2) until one of the players gets to 21.

The player who gets to 21 is the winner.

Here is a game between Ben and Sara as an example:

Ben goes first and says 2.
Sara adds 2 and says 4
Ben adds 1 and says 5
Sara adds 1 and says 6
Ben adds 2 and says 8
Sara adds 1 and says 9
Ben adds 2 and says 11
Sara adds 2 and says 13
Ben adds 2 and says 15
Sara adds 1 and says 16
Ben adds 2 and says 18
Sara adds 1 and says 19
Ben adds 2, **says 21 and wins**.

Play the game a few times and see if you can find any way of making sure you win.

If you go second, with the right tactics you can always win.

If you go first and the other person doesn't know the trick you can usually win as well.

Level 3

N1	N2	N3	N4	C1 ✓	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

C2 Mental Subtraction

For each set of questions, time how long it takes to get the answers.
You must work out the answers in your head - *you can't do any working on paper.*

Set A

1) 75 – 71
2) 98 – 93
3) 84 – 32
4) 68 – 24
5) 79 – 47
6) 38 – 29
7) 67 – 48
8) 54 – 39
9) 94 – 36
10) 72 – 25

Set B

1) 57 – 52
2) 78 – 71
3) 56 – 13
4) 78 – 27
5) 66 – 31
6) 84 – 38
7) 76 – 29
8) 43 – 17
9) 62 – 26
10) 51 – 24

Set C

1) 39 – 34
2) 67 – 62
3) 83 – 42
4) 88 – 34
5) 76 – 25
6) 63 – 39
7) 46 – 28
8) 54 – 48
9) 72 – 27
10) 72 – 38

For any set of questions:

45 seconds or less:	Maths teacher standard
46 to 89 seconds:	Extremely fast
90 to 149 seconds:	Fast
150 to 209 seconds:	Reasonable
210 seconds or more:	A bit more practise needed

Level 3

N1	N2	N3	N4	C1	C2 ✓	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

C2 Just For Fun

This is a good trick.
This page tells you how to do the trick.
The next page gives you the secrets.

Let your friend see you writing on a piece of paper. Don't let them see what you are writing, though.

Fold the piece of paper to hide what you have written and place it on the table.

Now ask your friend to write a number where the first digit is bigger than the third digit.

Let's say they write 723.

Ask them to write the number back-to-front underneath the first number they wrote. →

$$\begin{array}{r} 723 \\ 327 \end{array}$$

Ask them to subtract the bottom number from the top. →

$$\begin{array}{r} 723 \\ -327 \\ \hline 396 \end{array}$$

Now tell them to write their answer back-to-front underneath it. →

$$\begin{array}{r} 723 \\ -327 \\ \hline 396 \\ 693 \end{array}$$

Now ask them to add the two numbers together. →

$$\begin{array}{r} 723 \\ -327 \\ \hline 396 \\ +693 \\ \hline 1089 \end{array}$$

Tell them to unfold the paper on the desk.

They will find that you correctly predicted their final answer.

Level 3

N1	N2	N3	N4	C1	C2 ✓	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

C3 Addition of Integers

1) 51 + 36 = _____

2) 41 + 27 = _____

3) 231 + 25 = _____

4) 446 + 38 = _____

5) 569 + 84 = _____

6) 316 + 262 = _____

7) 596 + 472 = _____

8) 657 + 847 = _____

9) 62 + 38 + 517 = _____

10) 216 + 32 + 518 + 74 = _____

Level 3

N1	N2	N3	N4	C1	C2	C3 ✓	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

C3 Just For Fun

Work out what the ✱ must be.

1)
$$\begin{array}{r} 23 \\ +\ 4\ast \\ \hline 68 \\ \hline \end{array}$$

2)
$$\begin{array}{r} 58 \\ +\ 2\ast \\ \hline 84 \\ \hline \end{array}$$

3)
$$\begin{array}{r} 79 \\ +\ 4\ast \\ \hline 127 \\ \hline \end{array}$$

4)
$$\begin{array}{r} \ast 3 \\ +\ 8\ast \\ \hline 160 \\ \hline \end{array}$$

5)
$$\begin{array}{r} \ast\ast \\ +\ \ast 8 \\ \hline 192 \\ \hline \end{array}$$

6)
$$\begin{array}{r} 2\ast 6 \\ +\ 35\ast \\ \hline 618 \\ \hline \end{array}$$

7)
$$\begin{array}{r} 4\ast\ast \\ +\ \ast 64 \\ \hline 751 \\ \hline \end{array}$$

8)
$$\begin{array}{r} \ast 6\ast \\ +\ 4\ast 6 \\ \hline 1363 \\ \hline \end{array}$$

Level 3

N1	N2	N3	N4	C1	C2	C3 ✓	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2

C4 Subtraction of Integers

1) 35 – 12 = _____

2) 58 – 27 = _____

3) 93 – 46 = _____

4) 258 – 37 = _____

5) 681 – 79 = _____

6) 420 – 68 = _____

7) 743 – 471 = _____

8) 361 – 278 = _____

9) 800 – 692 = _____

10) 1450 – 785 = _____

Level 3

N1	N2	N3	N4	C1	C2	C3	C4 ✓	C5	C6	S1	S2	S3	S4	S5	D1	D2

C4 Just For Fun

Work out what the * must be.

1)
$$\begin{array}{r} 45 \\ -\ 2* \\ \hline *2 \\ \hline \end{array}$$

2)
$$\begin{array}{r} 79 \\ -\ *5 \\ \hline 3* \\ \hline \end{array}$$

3)
$$\begin{array}{r} 67 \\ -\ ** \\ \hline 41 \\ \hline \end{array}$$

4)
$$\begin{array}{r} ** \\ -\ 61 \\ \hline 25 \\ \hline \end{array}$$

5)
$$\begin{array}{r} 63 \\ -\ ** \\ \hline 16 \\ \hline \end{array}$$

6)
$$\begin{array}{r} 3*5 \\ -\ 26* \\ \hline 82 \\ \hline \end{array}$$

7)
$$\begin{array}{r} 9** \\ -\ *63 \\ \hline 565 \\ \hline \end{array}$$

8)
$$\begin{array}{r} *** \\ -\ 596 \\ \hline 187 \\ \hline \end{array}$$

Level 3

N1	N2	N3	N4	C1	C2	C3	C4 ✓	C5	C6	S1	S2	S3	S4	S5	D1	D2

C5 Multiplication by 2, 3, 4, 5, and 10

1) Fill in the missing numbers in the minitables below.

a)

×	10	4	5	3
3				
2		8		
1				3
5			25	

b)

×	5		4	2
2				
4		12		
				20
3				

2) Work out

a) 2 × 17 = ____ b) 24 × 5 = ____

c) 10 × 9 = ____ d) 4 × 62 = ____

e) 37 × 3 = ____ f) 2 × 81 = ____

g) 5 × 32 = ____ h) 3 × 19 = ____

i) 26 × 4 = ____ j) 11 × 10 = ____

Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5 ✓	C6	S1	S2	S3	S4	S5	D1	D2

C5 Just For Fun

1) a) **Use the table** to fill in the gaps below.

21 × 14 = ____

12 × ____ = 228

____ × 15 = 315

286 ÷ 22 = ____

×	**11**	**12**	**13**	**14**	**15**
18	198	216	234	252	270
19	209	228	247	266	285
20	220	240	260	280	300
21	231	252	273	294	315
22	242	264	286	308	330

b) Give two **different** pairs of numbers.

____ × ____ = 252

____ × ____ = 252

2) Julia says:

"*Multiply any number by five.*
The answer must be an odd number."

Is she correct?
Circle **Yes** or **No**

Yes / No

Explain how you know.

_____

Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5 ✓	C6	S1	S2	S3	S4	S5	D1	D2

C6 Division by 2, 3, 4, 5, and 10

1) Work out

a) 16 ÷ 2 = ____ b) 30 ÷ 5 = ____

c) 21 ÷ 3 = ____ d) 40 ÷ 4 = ____

e) 35 ÷ ____ = 7 f) 24 ÷ ____ = 8

2) Work out

a) 46 ÷ 2 = ____ b) 39 ÷ 3 = ____

c) 65 ÷ 5 = ____ d) 62 ÷ 4 = ____

e) 47 ÷ 3 = ____ f) 11 ÷ 10 = ____

g) 92 ÷ 4 = ____ h) 57 ÷ 3 = ____

i) 90 ÷ 5 = ____ j) 83 ÷ 10 = ____

Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6 ✓	S1	S2	S3	S4	S5	D1	D2

C6 Just For Fun

1) Here is part of the 45 times table.
Use the table to help you fill in the missing numbers.

a) 315 ÷ 7 = ____

b) 135 ÷ 45 = ____

c) 270 ÷ ____ = 45

d) ____ × 45 = 405

e) 495 ÷ 45 = ____

f) ____ × 45 = 900

g) 450 ÷ 30 = ____

1 × 45	=	45
2 × 45	=	90
3 × 45	=	135
4 × 45	=	180
5 × 45	=	225
6 × 45	=	270
7 × 45	=	315
8 × 45	=	360
9 × 45	=	405
10 × 45	=	450

2) Joe says:

"*Divide any number by three.*
The answer must be an even number."

Is he correct?
Circle **Yes** or **No**

Yes / No

Explain how you know.

_____

Level 3

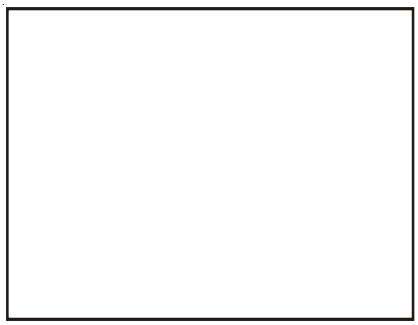
N1	N2	N3	N4	C1	C2	C3	C4	C5	C6 ✓	S1	S2	S3	S4	S5	D1	D2

S1

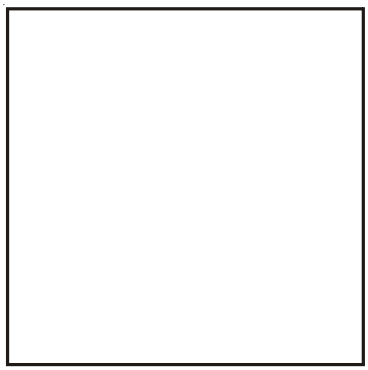
Reflective Symmetry
of 2D Shapes

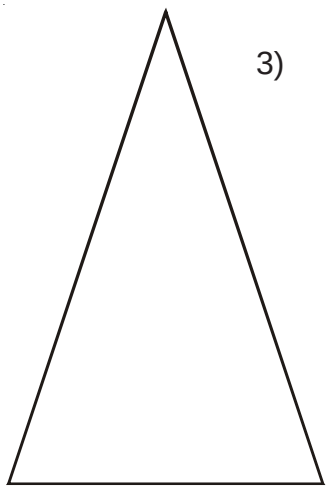
Look at each shape, read the description and then draw in all the lines of symmetry.

1) **Rectangle**
Two lines of symmetry



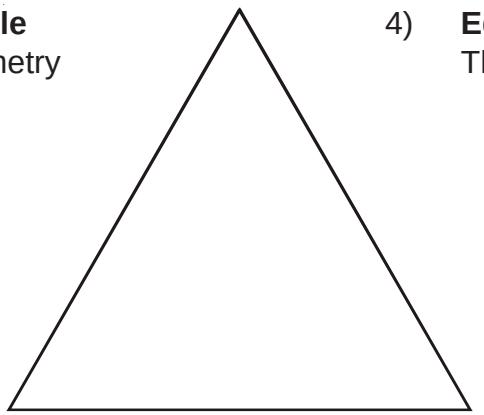
2) **Square**
Four lines of symmetry



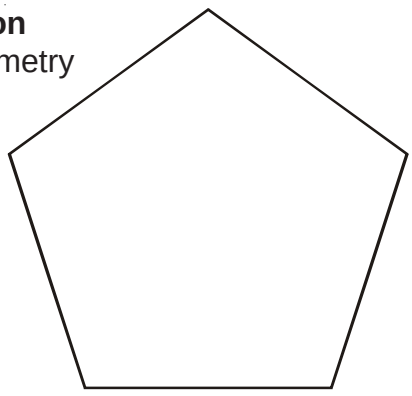


3) **Isosceles triangle**
One line of symmetry

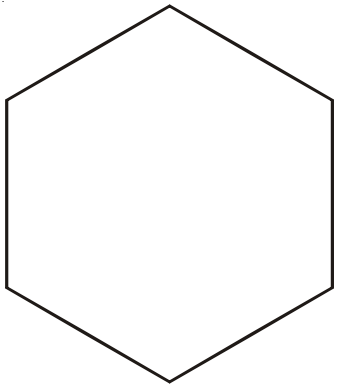
4) **Equilateral triangle**
Three lines of symmetry



5) **Regular pentagon**
Five lines of symmetry



6) **Regular hexagon**
Six lines of symmetry

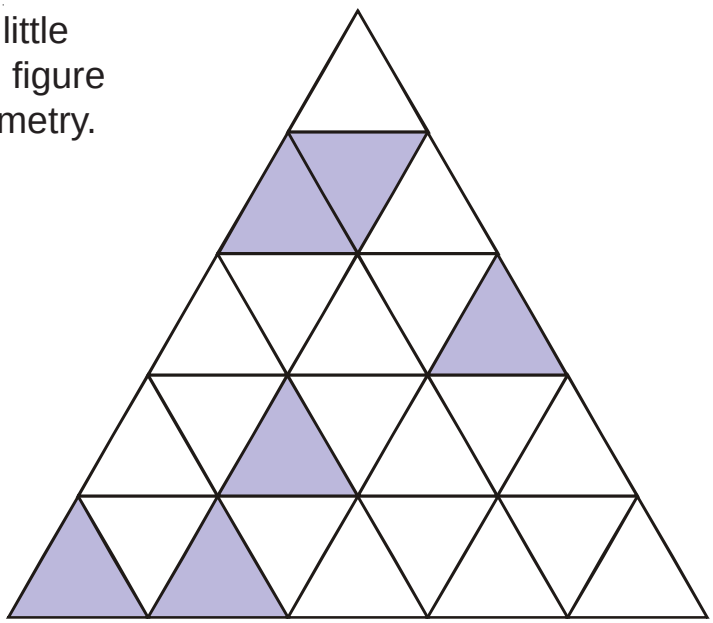


Level 3

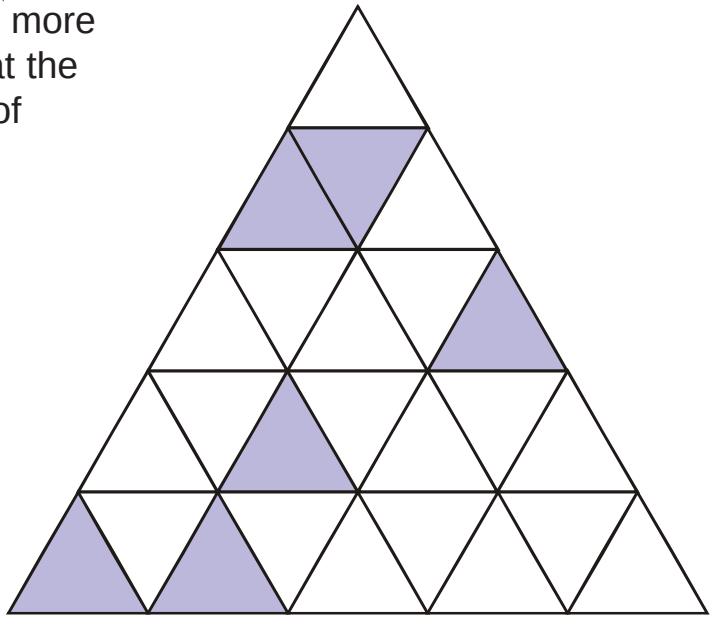
N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1 ✓	S2	S3	S4	S5	D1	D2

S1 Just For Fun

1) Shade in **five** more little triangles so that the figure has one line of symmetry.



2) Shade in **just three** more little triangles so that the figure has one line of symmetry.

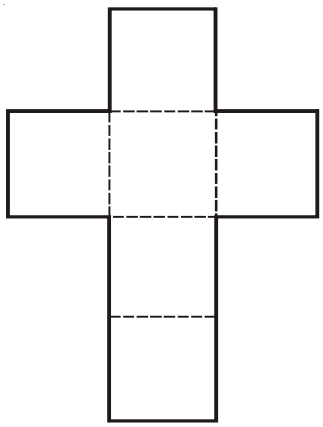


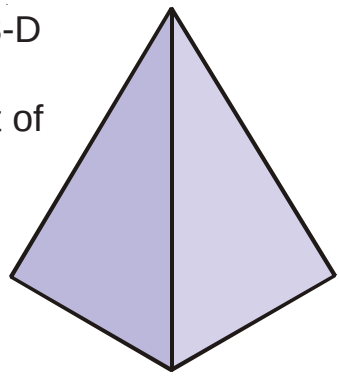
Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1 ✓	S2	S3	S4	S5	D1	D2

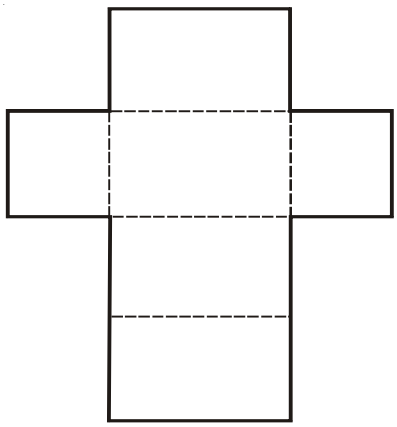
S2 Recognising Nets

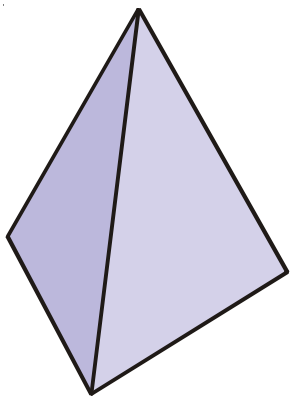
Draw two lines from each label.
One line should go to the correct 3-D shape.
The other one should go to the net of the 3-D shape.





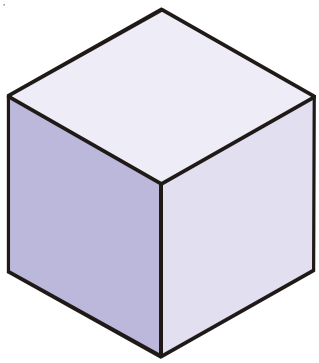
Cuboid

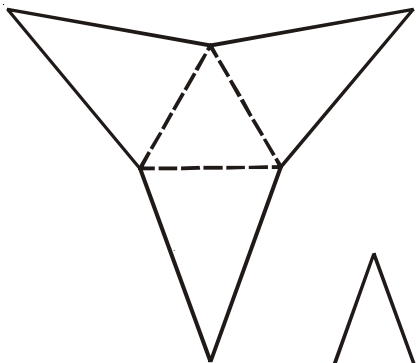




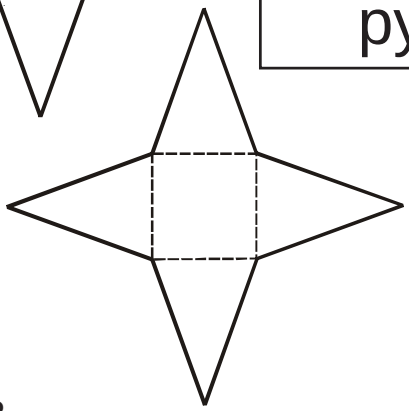
Triangle-based pyramid

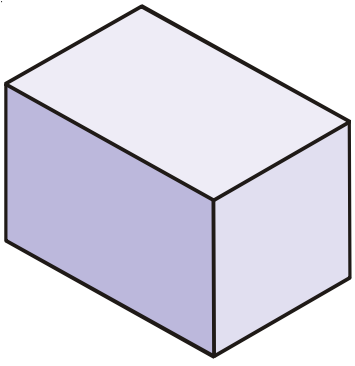
Cube





Square-based pyramid





Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2 ✓	S3	S4	S5	D1	D2

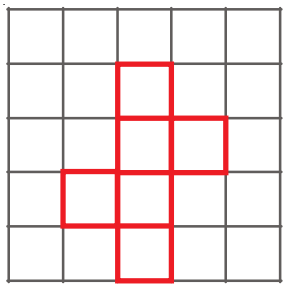
S2 Just For Fun

There are exactly eleven different nets of a cube.

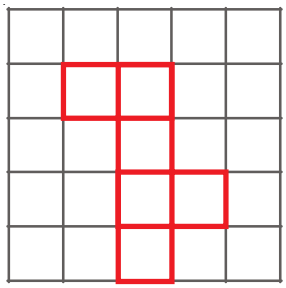
Below, you can see two of them.

See how many of the other nine you can find.

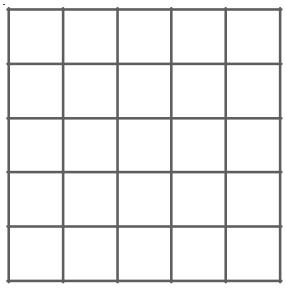
1)



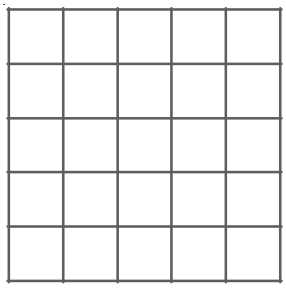
2)



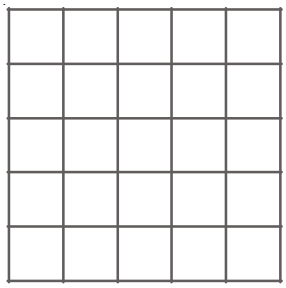
3)



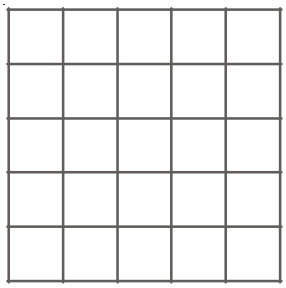
4)



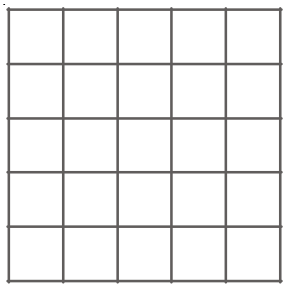
5)



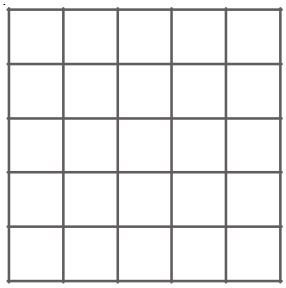
6)



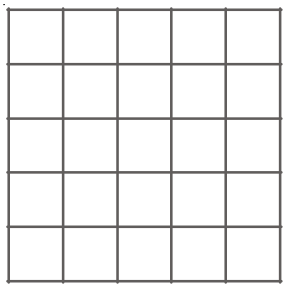
7)



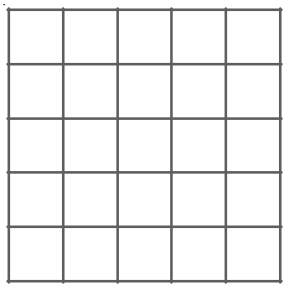
8)



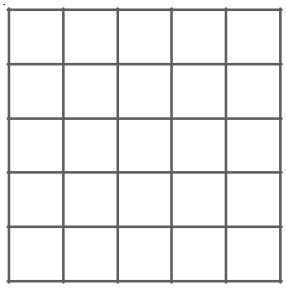
9)



10)



11)



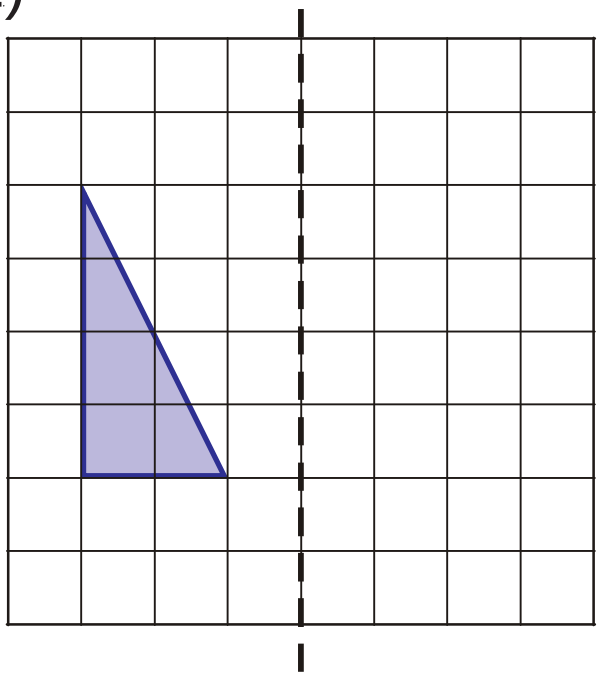
Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2 ✓	S3	S4	S5	D1	D2

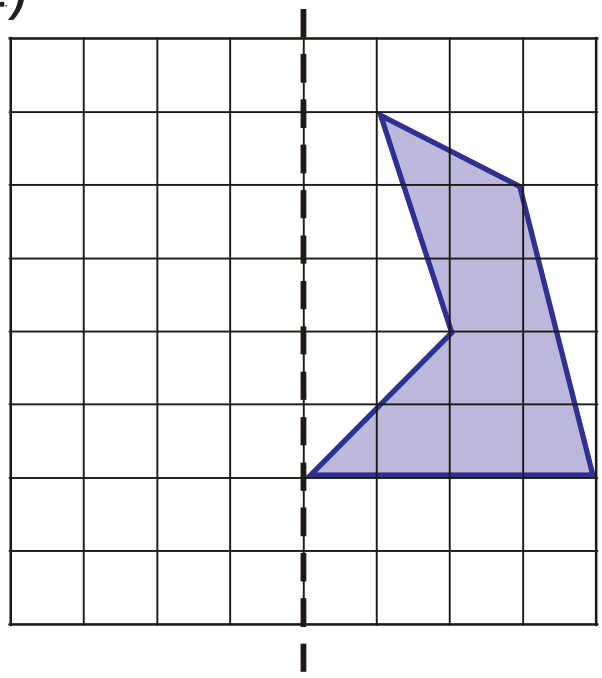
S3 Reflecting Shapes

In all four questions, reflect the shaded shape in the dotted mirror line.

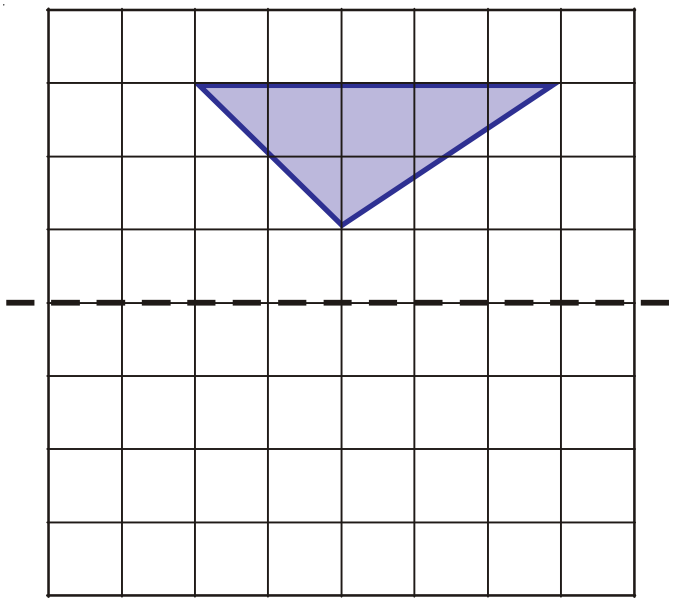
1)



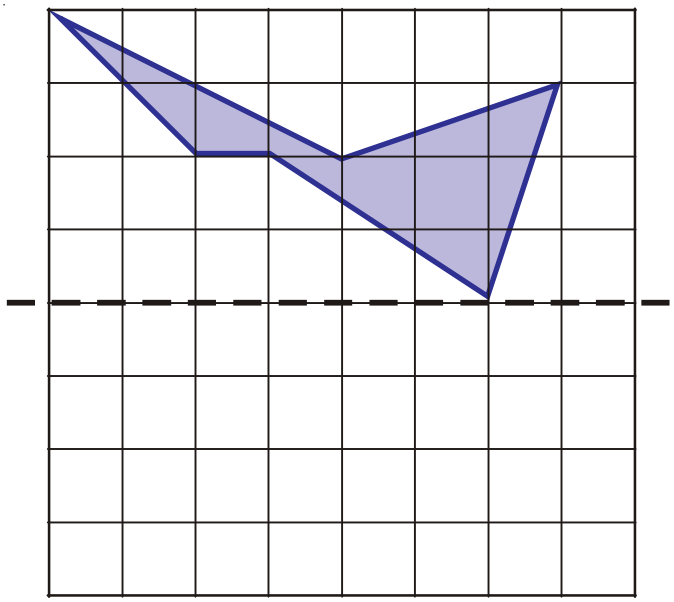
2)



3)



4)

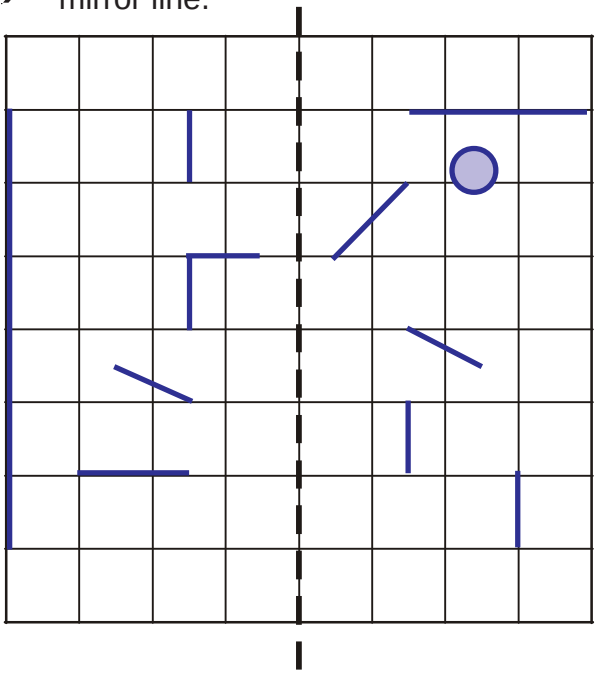


Level 3

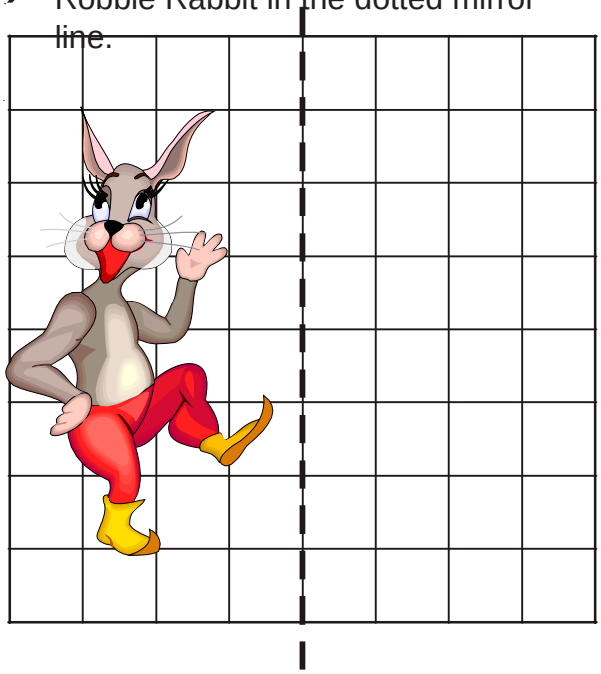
N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3 ✓	S4	S5	D1	D2

S3 Just For Fun

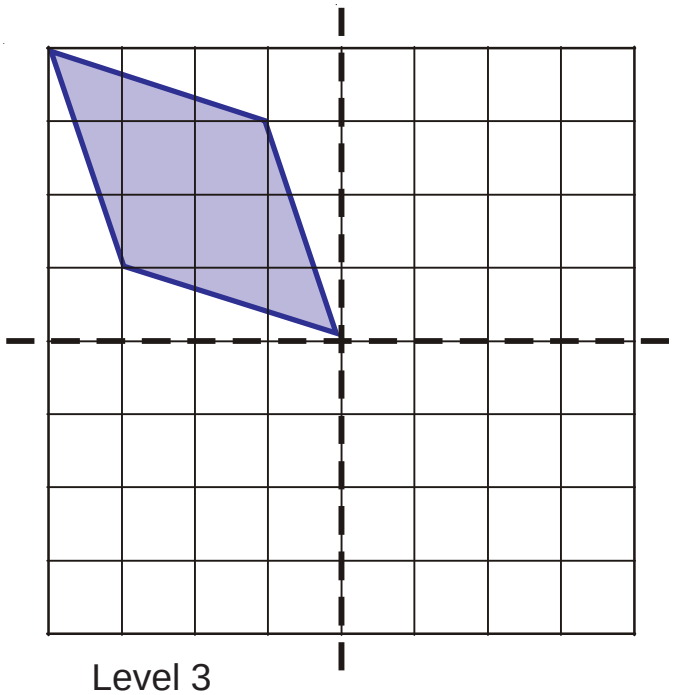
1) Reflect every line in the dotted mirror line.



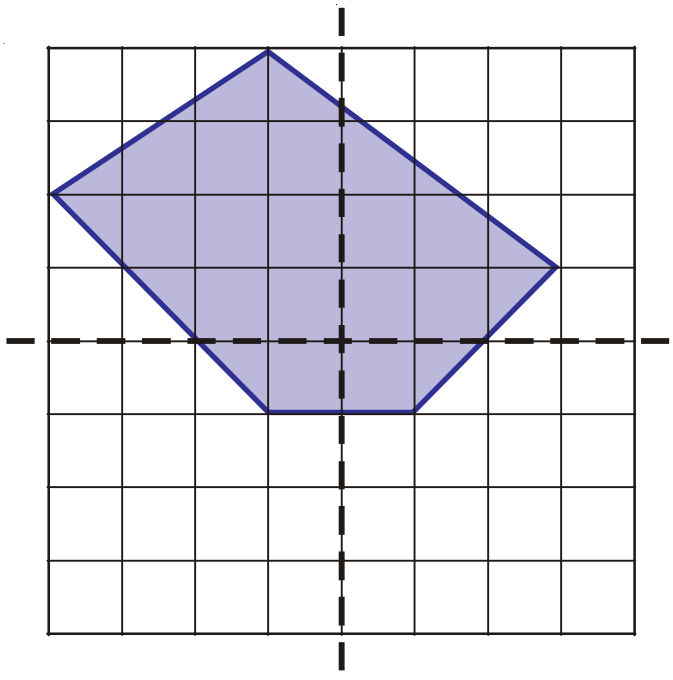
2) Use the grid to help you reflect Robbie Rabbit in the dotted mirror line.



3) Reflect the shape in the vertical mirror line.
Then, reflect both shapes in the horizontal mirror line.



4) Reflect the shape in the vertical mirror line.
Then, reflect both shapes in the horizontal mirror line.



Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3 ✓	S4	S5	D1	D2

S4 Metric Units

1) a) How many millimetres are in a centimetre?

b) How many centimetres are in a metre?

c) How many metres are in a kilometre?

d) Work out how many millimetres are in a metre.

2) How many grams are in three kilograms?

3) How many millilitres are in a five litres?

4) In the table, work out what each item should be measured in.
Your choices are mm, cm, m, km, g, kg, ml or l.

Amount of lemonade in a bottle	
Mass of a lemonade bottle	
Width of a lemonade bottle	
Distance to the moon	
Mass of a wasp	
Length of a wasp	
Amount of blood in a human body	

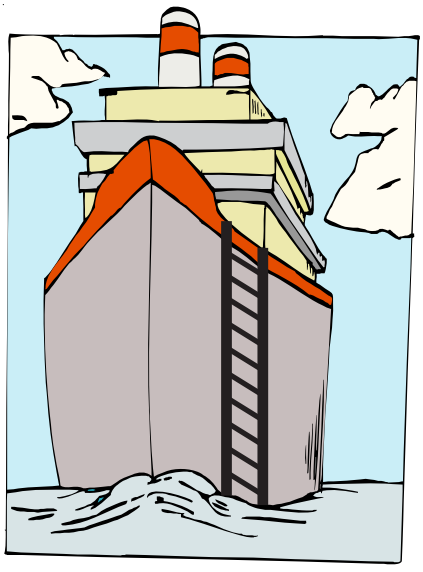
Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4 ✓	S5	D1	D2

S4 Just For Fun

1) Try to match up A to F with U to Z

A	Mass of the Earth	U	1460 000 000 000 000 000 000 litres
B	Capacity of all water on Earth	V	2 400 km
C	Length of airways in the lungs laid end-to-end	W	3 041 409 000 000 000 kg
D	Average capacity of air breathed in a day	X	100 000 km
E	Mass of Mount Everest	Y	5 980 000 000 000 000 000 000 000 kg
F	Blood vessels in a human body laid end-to-end	Z	11 000 litres



2) The ship is in a harbour.

There are ten rungs visible on the ship's ladder and they are 30 cm apart.

The tide is coming in and the water is rising at the rate of 20 cm per minute.

How many rungs will be visible after 9 minutes?

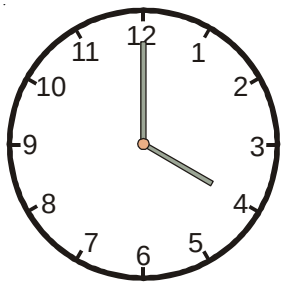
Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4 ✓	S5	D1	D2

S5 Time

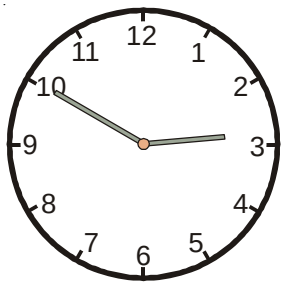
1) Write these times as 24 hour clock times

a)



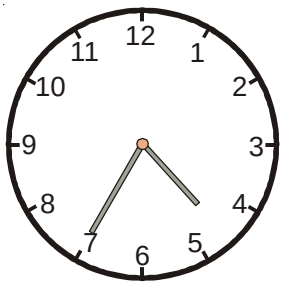
a.m.

b)



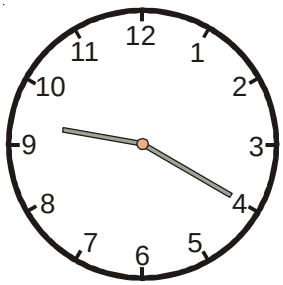
p.m.

c)



p.m.

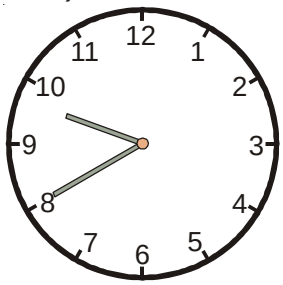
d)



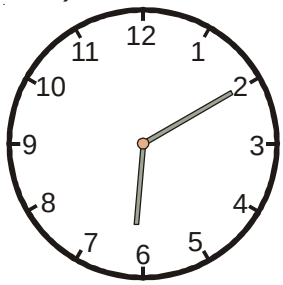
p.m.

2) Draw these times on the clock faces.
Underneath the clocks write whether the time is a.m. or p.m.

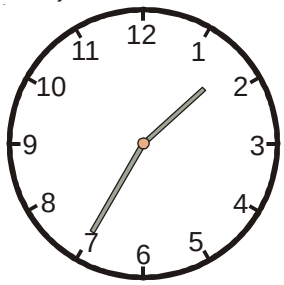
a) 09:40



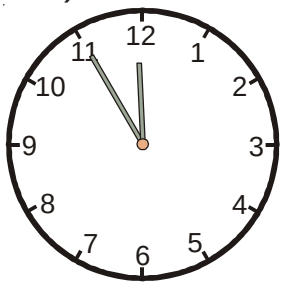
b) 18:10



c) 13:35



d) 23:55



3) Peter wants to watch a programme which begins at 8.00 p.m.
It is now 4.30 p.m.
How much time will Peter have to wait?

4) Susie is going to watch a programme which begins at 20:30 and lasts for one hour and forty five minutes.
What time will it finish?

Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5 ✓	D1	D2

S5 Just For Fun

1) Here is a train timetable for trains going from London Euston to Crewe.

London Euston	09:38	12:49	15:46	16:49	17:17	17:48
Northampton	10:25	--------	--------	--------	--------	--------
Rugby	10:47	13:47	--------	--------	--------	--------
Nuneaton	11:00	14:01	--------	--------	--------	--------
Atherstone	--------	14:07	--------	--------	--------	--------
Polesworth	--------	14:12	--------	--------	--------	--------
Tamworth	11:15	14:17	15:53	--------	18:24	--------
Lichfield	11:22	14:23	--------	18:03	--------	19:00
Rugeley	--------	14:33	--------	--------	--------	--------
Stafford	--------	14:44	--------	--------	--------	--------
Crewe	12:00	15:09	17:31	18:41	19:07	19:34

a) How many trains stop at Tamworth?

b) If Tom gets to London Euston at 15:30 how long will he have to wait for a train to take him to Crewe?

c) How many minutes does the 09:38 London Euston train take to get to Northampton?

d) How many minutes does the 14:23 Lichfield train take to get to Crewe?

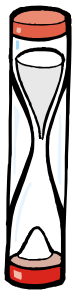
e) How long does the 17:48 London Euston train take to get to Crewe in hours and minutes?

2) You have two egg-timers.

One takes 11 minutes for the sand to run through and the other takes 7 minutes.

You want to boil an ostrich egg for 15 minutes.

How can you measure exactly 15 minutes with your two egg-timers?



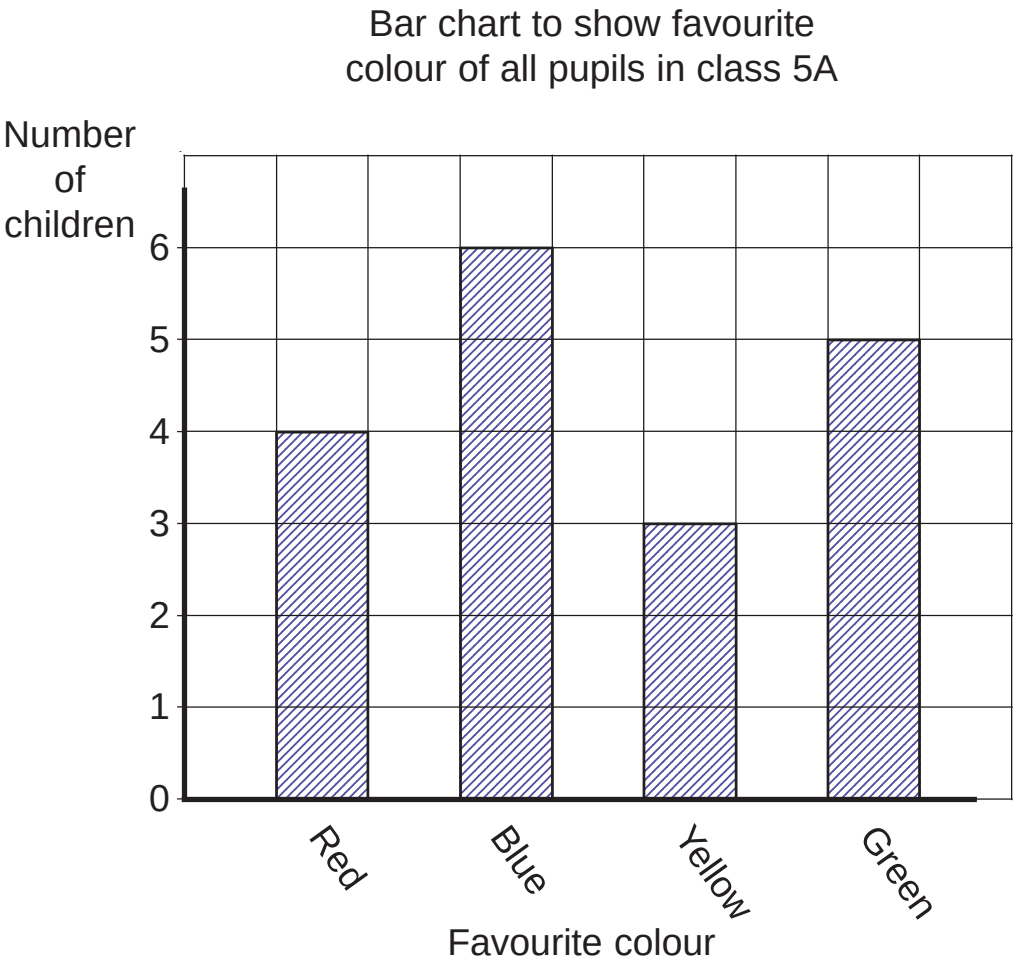
11 minute timer

7 minute timer

Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5 ✓	D1	D2

D1 Reading Bar Charts and Pictograms



a) How many children chose green as their favourite colour?

b) Which was the least favourite colour in the class?

c) How many more children chose blue than red?

d) How many children are in class 5A?

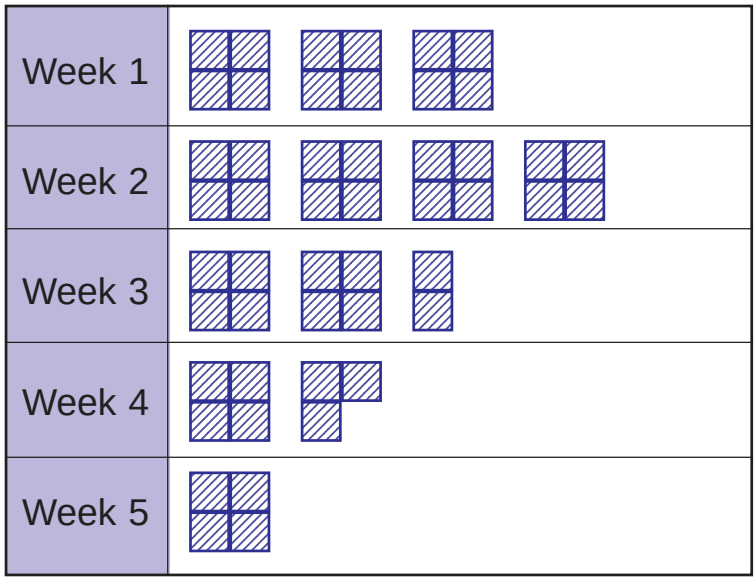
Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1 ✓	D2

D1 Reading Bar Charts and Pictograms

An art gallery uses a pictogram to show the number of paintings sold over a 5 week period.

Key:  = 4 paintings



a) How many paintings were sold in week 1?

b) In which week was the least number of paintings sold?

c) How many paintings were sold in week 3?

d) How many paintings were sold in week 4?

e) How many more paintings were sold in week 2 compared with week 5?

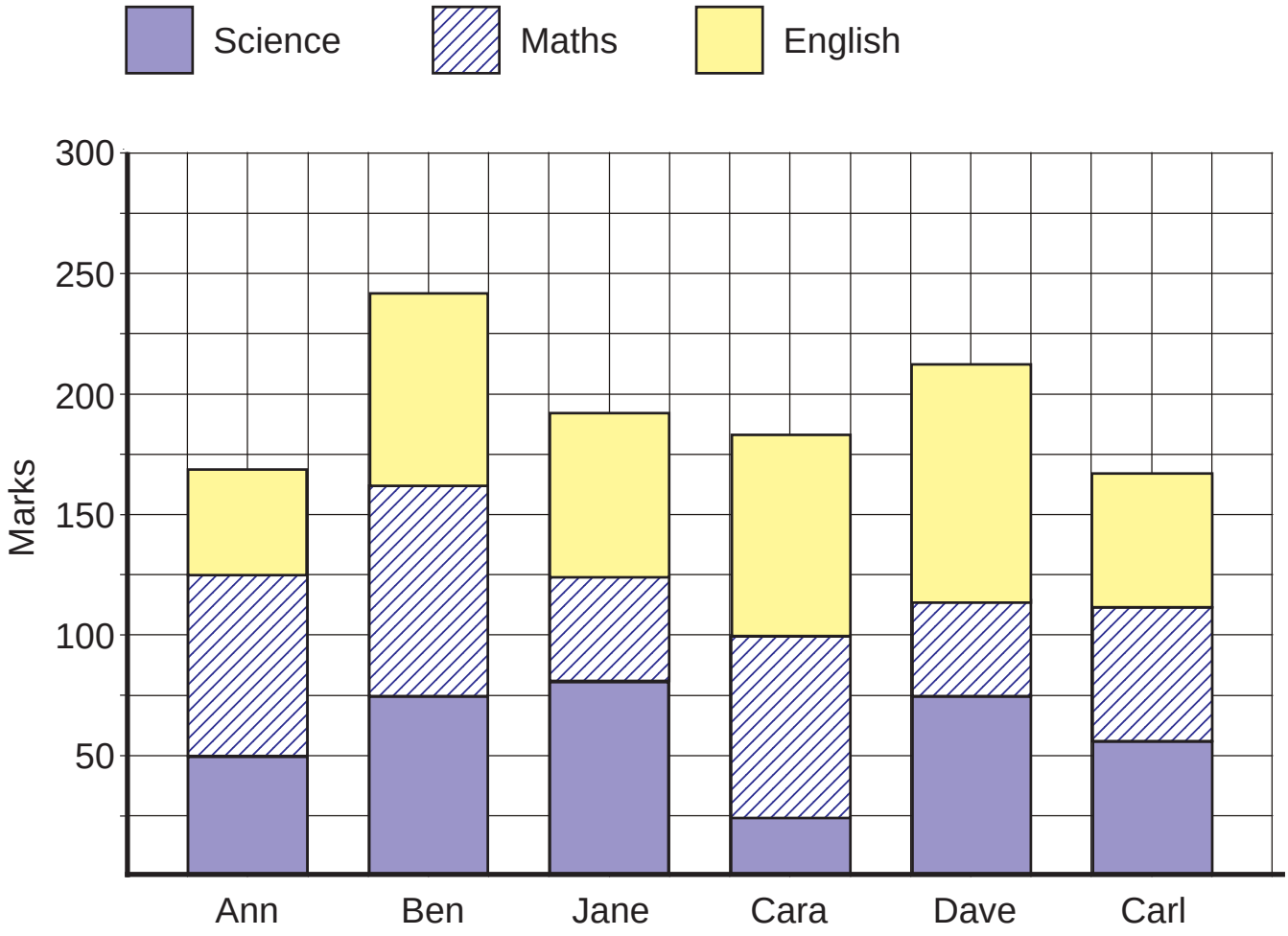
f) How many paintings were sold altogether in the five weeks?

Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1 ✓	D2

D1 Just For Fun

Six students sat exams in English, Maths and Science.
Each exam was marked out of 100.
Their teacher made a bar chart of their results.



a) Which student got the highest total mark?

b) Who got the highest English mark?

c) One student got the same mark for all three subjects. Write down the name of this student.

d) What mark did Ann get for Maths?

e) One student had their lowest mark for English. Who was it?

Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1 ✓	D2

D2 Drawing Bar Charts and Pictograms

1) The beginners class in a Judo club has 24 members and each of them has either a white, yellow, orange, green or blue belt.

The table below shows how many of each belt there are.

Colour of belt	Frequency
White	3
Yellow	5
Orange	7
Green	3
Blue	6

On squared paper, draw a bar chart to show this information.

2) All year 6 pupils in a school were each given a new pencil case as a leaving present.

The pupils chose which colour they would like and this is shown in the table below.

Colour of pencil case	Frequency
Red	17
Green	4
Black	10
Yellow	15
Blue	8

Draw a pictogram to show this information.

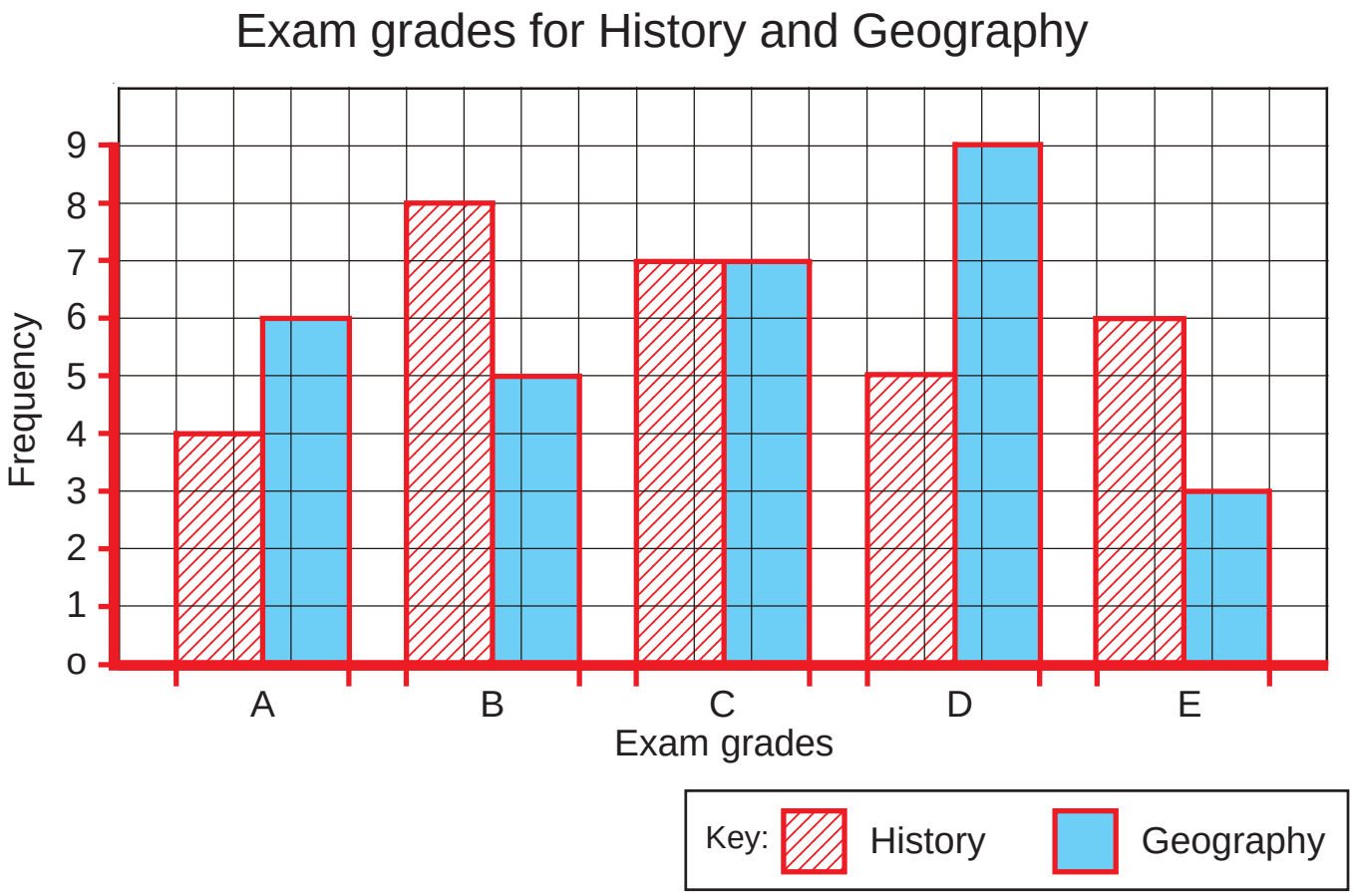
Let  represent 4 pencil cases.

Level 3

N1 N2 N3 N4 C1 C2 C3 C4 C5 C6 S1 S2 S3 S4 S5 D1 D2 ✓

D2 Just For Fun

1) A class of 30 pupils took a History exam and a Geography exam. The comparative bar chart below shows how many of each grade the class gained for both subjects.



a) Which subject had more grade A results?

b) How many more grade D results were there in Geography compared to History?

2) One Tuesday a record was kept of which meals students in Class A and Class B bought in the school dining hall.

The results can be seen in the table.

Draw a comparative bar chart to show this information.

	Frequency	
Meal	***Class A***	***Class B***
Fish	3	9
Curry	8	2
Pizza	7	5
Stew	5	7

Level 3

N1	N2	N3	N4	C1	C2	C3	C4	C5	C6	S1	S2	S3	S4	S5	D1	D2 ✓