Milestone Maths Placement Tests

Who Should Use This Test?

If you have a child who is at least 5.5 years old and has never had any formal mathematical training, you may use this test to determine if they are ready to begin level B or if they should start with level A.

If you have an older child, you should use these tests to place your child accurately in the Milestone Maths program. Since Milestone Maths is a mastery program, accurate placement is essential for success.

Who Should NOT Use This Test?

If your child is less than 5.5 years old, you do not need to test. Start at level A.

If your child has just completed a level of Milestone Maths, there is no need to complete this test, but you may do so if you would like to track their mathematical progress.

Administering The Tests

For young children (< 6 years old) begin with Test A and follow the directions at the end of each test.

Older children should begin at Test B and follow the directions at the end of each test. Older children may take several days to complete the test. **Do not try to do too much in one day as fatigue will affect the results.** We suggest that you spend no more than half an hour per day on these tests.

There is no time limit for the tests, but you should watch your child complete the basic fact questions: they should not overly hesitate or "count" the answers.

As this is a maths test, and not a reading test, it is OK if you need to read the questions to your student. However, you should not help them to answer any of the questions as this will defeat the purpose of the test. If they beg you to help, just say to your child, "We only want to find out what you can do on your own so we know which book to start at. Just try your best, and leave a blank if you really don't know how to do a question."

Required Materials:

— Levels B and above: Pencil, ruler & rubber

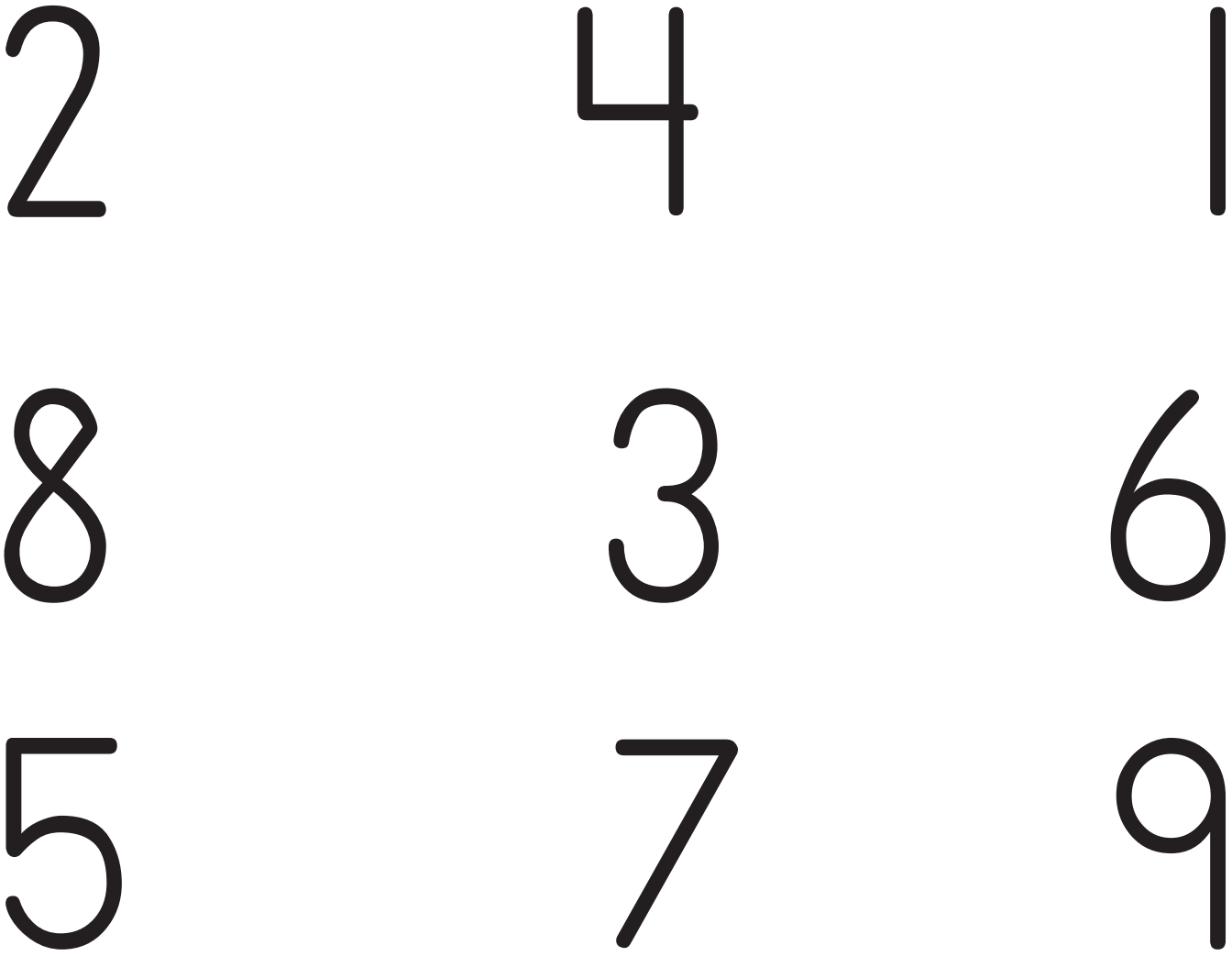
— For Level E: Protractor

Test A

Note to parent: This test is to determine if your child is ready to begin level B. The child should be at least 5.5 years of age when administering this test. It is assumed that the child cannot read so all instructions should be read by the parent.

1. Count to ten.

2 Tell me what the following numbers are (you can point to them at random or in the order given):



Placement Instructions

If your child easily performed the above activities AND they are at least 5.5 years old, they are ready for level B and should begin at level B1.

Note: Delaying until the child is 6 years old is a good idea as it will allow their hand muscles to strengthen and develop for proper writing. If you would like to do this, consider starting with level A.

Test B1

Note: it is OK for the parent to read the instructions to the student, but you should not 'help' the child or teach them at all.

1. Write the numbers 0-10 on the number line in the proper place:



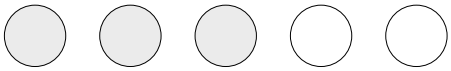
2. Count **up** from the following numbers:

2, ____, ____, ____ 7, ____, ____, ____ 4, ____, ____

3. Count **down** from the following numbers:

3, ____, ____, ____ 9, ____, ____, ____ 5, ____, ____

4. Write a sum that matches the picture:



_____

5. Draw a picture that matches the sum:

3 + 1 = 4

Test B2

Note: it is OK for the parent to read the instructions to the student, but you should not 'help' the child or teach them at all.

1. Write the numbers 10-20 on the number line in the proper place:



2. Count **up** from the following numbers:

9, ____, ____, ____ 16, ____, ____, ____ 14, ____, ____

3. Circle the **smallest** number in each set:

10 19 12 | 16 13 14

3. Write the sums:

3 + 7 = _____ 6 + 4 = _____ 2 + 8 = _____

1 + 1 = _____ 7 + 3 = _____ 3 + 1 = _____

1 + 9 = _____ 1 + 4 = _____ 2 + 2 = _____

4 + 6 = _____ 8 + 2 = _____ 2 + 3 = _____

3 + 2 = _____ 5 + 5 = _____ 1 + 2 = _____

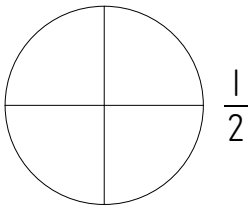
Test B3

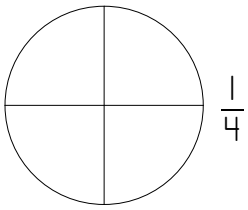
Note: it is OK for the parent to read the instructions to the student, but you should not 'help' the child or teach them at all.

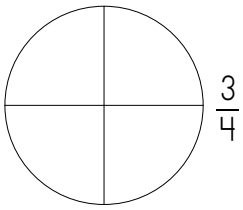
1. Write the numbers 70-80 on the number line in the proper place:



2. Colour the fraction of the shape indicated.



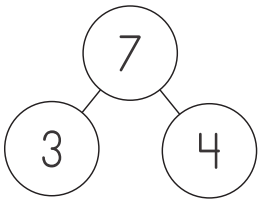




3. Count by **tens.** Start at **10**.

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3. Write the four equations (fact family) represented by the number bond.



5. Find the sums.

4 + 5 = _____	1 + 4 = _____	2 + 1 = _____
1 + 7 = _____	1 + 6 = _____	8 + 1 = _____
1 + 1 = _____	3 + 5 = _____	3 + 1 = _____
5 + 5 = _____	1 + 3 = _____	6 + 1 = _____
4 + 1 = _____	1 + 2 = _____	2 + 8 = _____

Test B4

Note: it is OK for the parent to read the instructions to the student, but you should not 'help' the child or teach them at all.

1. Measure the bars to the nearest centimetre:



2. Fill in the blanks.

$\frac{1}{2}$ of 10 is ____ $\frac{1}{2}$ of 6 is ____ $\frac{1}{2}$ of 8 is ____ $\frac{1}{2}$ of 4 is ____

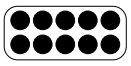
3. Find the sums.

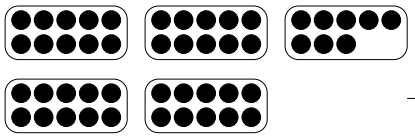
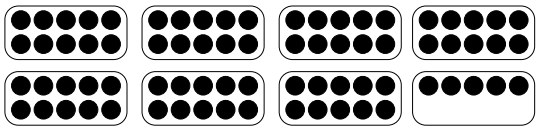
5 + 1 = _____	5 + 2 = _____	2 + 7 = _____
3 + 3 = _____	4 + 3 = _____	8 + 2 = _____
3 + 4 = _____	6 + 2 = _____	4 + 4 = _____
1 + 9 = _____	2 + 4 = _____	6 + 4 = _____
3 + 1 = _____	4 + 2 = _____	8 + 1 = _____
6 + 1 = _____	7 + 3 = _____	1 + 6 = _____
2 + 3 = _____	1 + 8 = _____	3 + 6 = _____
4 + 6 = _____	6 + 3 = _____	5 + 3 = _____

Test C1

1. How many digits in each number:

254 _____ 3 _____ 1,287 _____

2.  This picture contains ten dots. Count the dots in each group:

 _____  _____

2. Write the numbers on the place value charts.

	t	o
35		

	t	o
20		

	t	o
94		

	t	o
68		

3. The number 42 written in expanded form is: 42 = 40 +2. Write the following in expanded form.

36 = _____ 72 = _____

3. Find the differences.

8 - 4 = _____ 3 - 2 = _____ 10 - 4 = _____

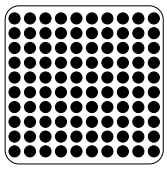
10 - 1 = _____ 6 - 3 = _____ 7 - 2 = _____

10 - 3 = _____ 10 - 6 = _____ 6 - 2 = _____

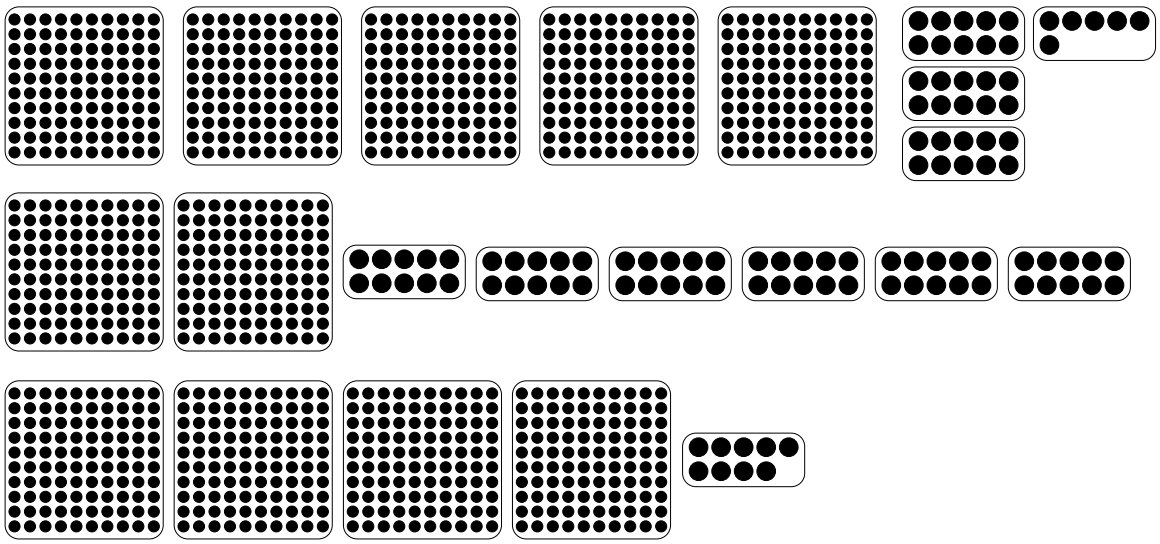
9 - 2 = _____ 8 - 3 = _____ 7 - 4 = _____

6 - 4 = _____ 9 - 4 = _____ 9 - 7 = _____

Test C2



1. This grid contains 100 dots. Write how many dots are in each picture below:



2. Write the numbers on the place value charts.

	h	t	o
245			

	h	t	o
307			

	h	t	o
190			

3. Write the numbers in expanded form.

245 = _____ 190 = _____

307 = _____

3. Calculate:

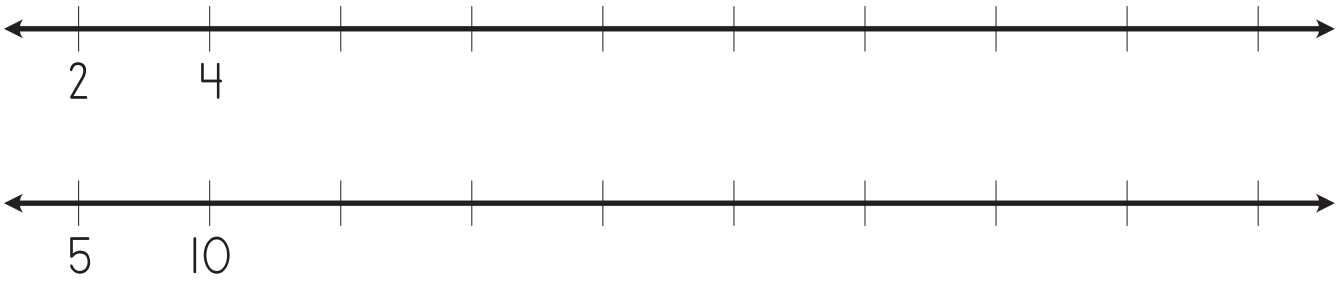
			2	3
		+	7	5

			6	8
		+	1	4

			8	7
		-	3	6

			9	0
		-	4	5

3. Skip count:



24 34 _____ _____ _____ _____ _____ _____ _____ _____

4. Add:

49 + 10 = _____ 54 + 9 = _____ 22 + 9 = _____

16 + 9 = _____ 44 + 10 = _____ 38 + 10 = _____

62 + 9 = _____ 63 + 10 = _____ 24 + 9 = _____

5. Add:

8 + 7 = _____ 7 + 9 = _____ 9 + 7 = _____

7 + 4 = _____ 7 + 7 = _____ 4 + 2 = _____

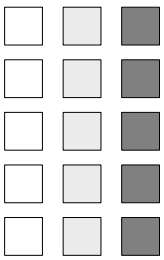
7 + 2 = _____ 7 + 6 = _____ 3 + 9 = _____

3 + 7 = _____ 7 + 10 = _____ 9 + 2 = _____

2 + 7 = _____ 1 + 7 = _____ 3 + 8 = _____

Test C3

1. Write an addition equation and a multiplication equation about the picture.



_____

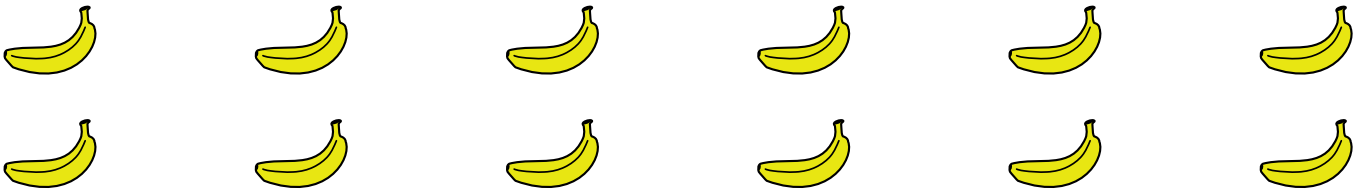
_____

2. Write an addition to match each multiplication and solve:

4 × 4 = _____

2 × 5 = _____

3.Share 12 bananas between 3 monkeys, how many bananas does each monkey get? _____



4. How much money is shown in each row?

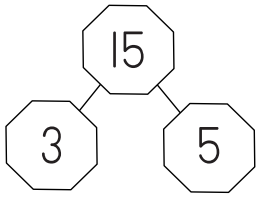








5. Follow the example to write four equations represented by the multiplication number bond.

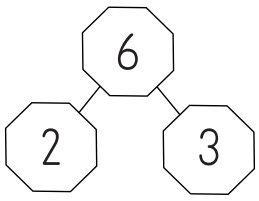


3 × 5 = 15

5 × 3 = 15

15 ÷ 5 = 3

15 ÷ 3 = 5



_____

_____

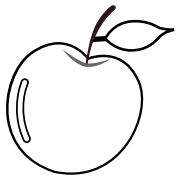
_____

_____

6. Circle the even numbers.

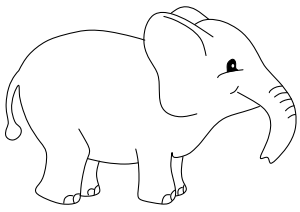
52 889 637 608 845 620

7. Circle the most appropriate units to measure each object (in real life).



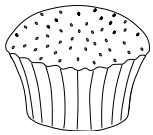
cm

m



cm

m



cm

m

5. Multiply:

10 × 10 = _____ 2 × 3 = _____ 10 × 3 = _____

2 × 6 = _____ 10 × 1 = _____ 10 × 4 = _____

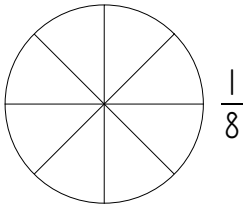
2 × 1 = _____ 10 × 2 = _____ 10 × 8 = _____

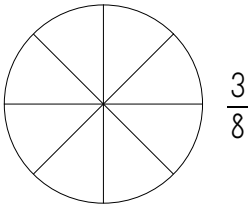
2 × 5 = _____ 2 × 8 = _____ 2 × 4 = _____

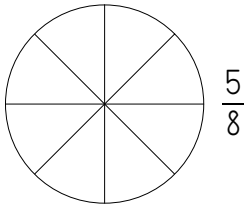
2 × 9 = _____ 10 × 6 = _____ 10 × 9 = _____

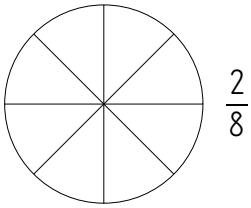
Test C4

1. Colour the fraction of the shape indicated.

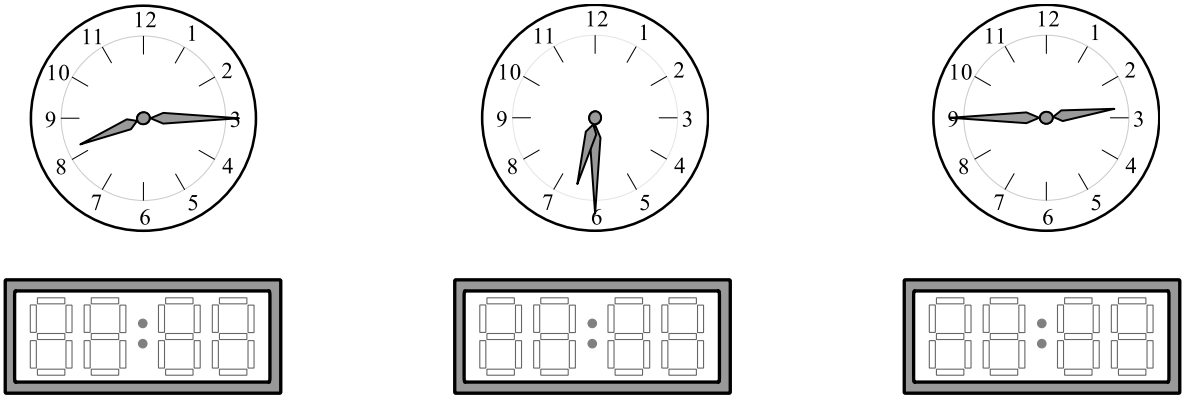

$\frac{1}{8}$


$\frac{3}{8}$


$\frac{5}{8}$


$\frac{2}{8}$

2. Colour the digital clock to match the time shown on the analogue clock and write the time in words.



_____ _____ _____

3. Follow the instructions:

— Place a cross on the first fruit from the right.

— Colour the third fruit from the left red.

— Colour the third fruit from the right green.

— Circle the fourth fruit from the left.

— Underline the second fruit from the right.

— Colour the second fruit from the left yellow.



4. Follow the direction to colour the squares and make a picture. Colour neatly.

Light blue: F1 E2 F2 E3 D4 E4 F4 D5 E5 D6 E6 D7 E7 F7 E9

Blue: G2 G3 G4 H4 F5 G5 H5 F6 G6 H6 F7 G7 H7 F8 G9

Red: C5 I5 C6 I6 B7 C7 I7 J7 B8 C8 I8 J8 B9 J9

Yellow: F9 F10

Orange: E10 G10 E11 G11

	A	B	C	D	E	F	G	H	I	J	K
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											

5. Multiply:

10 × 10 = _____ 10 × 6 = _____ 10 × 5 = _____

10 × 3 = _____ 10 × 1 = _____ 2 × 1 = _____

10 × 4 = _____ 2 × 6 = _____ 2 × 3 = _____

2 × 7 = _____ 10 × 8 = _____ 10 × 2 = _____

10 × 7 = _____ 2 × 10 = _____ 2 × 9 = _____

10 × 9 = _____ 2 × 8 = _____ 10 × 10 = _____

2 × 5 = _____ 2 × 4 = _____ 2 × 2 = _____

Test D1

1. Compare each pair of numbers (<, =, >)

1495 ___ 149	3483 ___ 5602	9346 ___ 9319
1924 ___ 8252	3794 ___ 9766	3240 ___ 3240

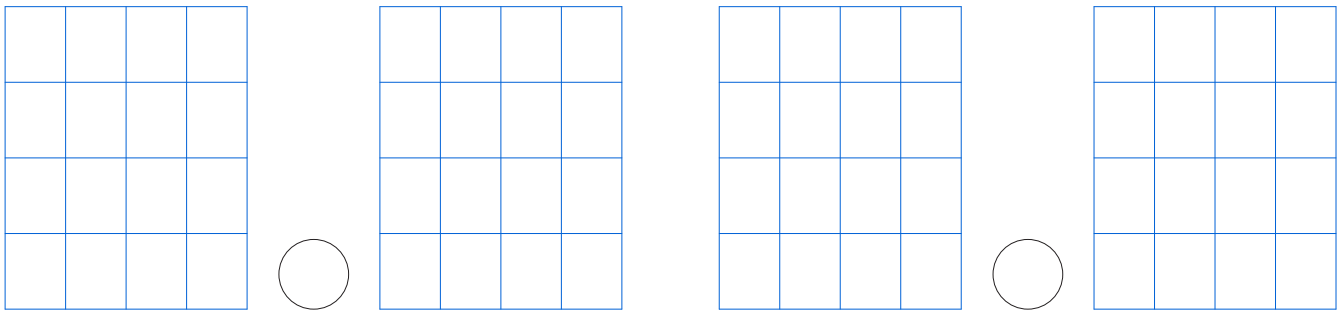
2. Round the following numbers to the nearest 10.

Number	25	62	86	47	34
Rounded					

3. Estimate the sum and calculate it accurately. Then, write the correct sign (< = >) in the circle between the sums to compare the answers.

35 + 45 ○ 21 + 43

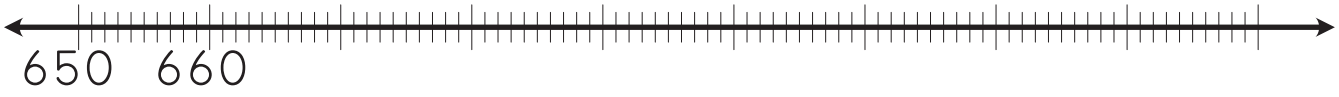
Estimate **Actual** **Estimate** **Actual**



4. Calculate

6 9 +4	6 6 +8	8 9 +5	1 6 +5	7 5 +7

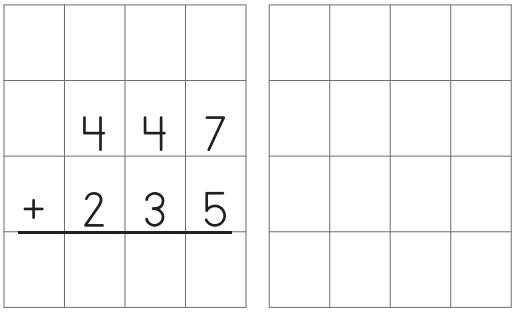
5. Complete the number line then use it to add.

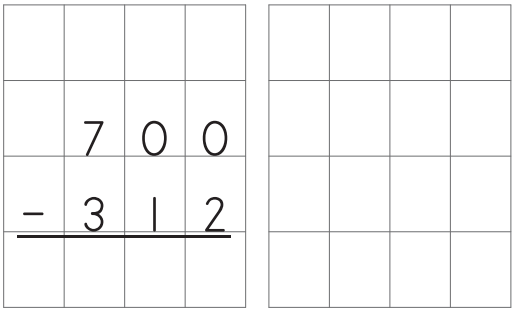


662 + 70 = ____ 657 + 30 = ____ 671 + 30 = ____

695 + 40 = ____ 673 + 10 = ____ 684 + 50 = ____

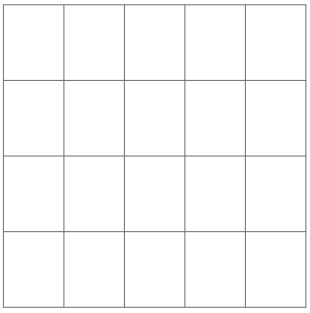
6. Calculate then perform the opposite operation to check your answer.





7. Solve the missing number equation.

870 − ___ = 383

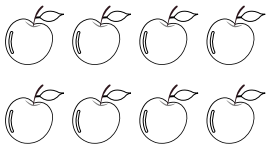


Test D2

1. Draw an array to show the multiplication:

$$3 \times 4 = 12$$

2. Write the division and multiplication equations that the array represents.



3. Solve.

		7	1
	×		2

		3	6
	×		4

		5	9
	×		2

		4	2
	×		5

4. Fill in the missing numbers.

5×_____=40 40÷5=_____	5×_____=15 15÷5=_____	5×_____=35 35÷5=_____

5. Fill in the missing numbers.

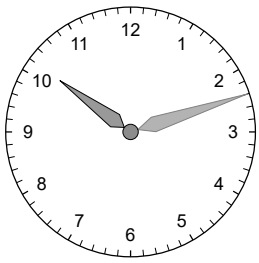
If 2 × 16 = 32,
and 2 × 32 = 64.
Find 4 × 16 = _____

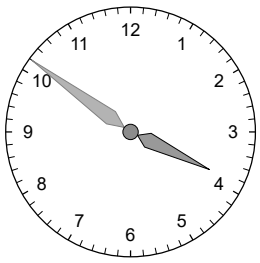
If 2 × 12 = 24,
and 2 × 24 = 48.
Find 4 × 24 = _____

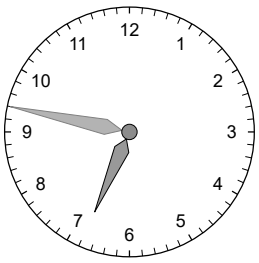
6. There were 24 pikelets on the plate. Dad, Mum, Molly and Toby shared them equally. How many pikelets did each member of the family get?

Test D3

1. Write the time shown on the clock in digital form and in words.



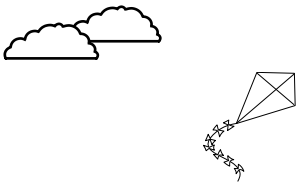


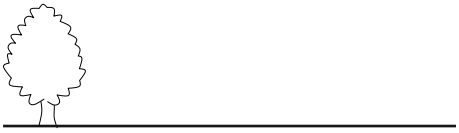


_____ _____ _____

_____ _____ _____

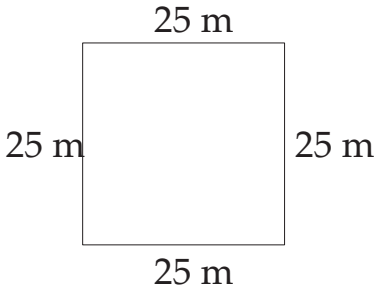
2. The kite is 537 cm above the ground. How high is that in metres and centimetres?





537 cm = _____ m _____ cm

3. Calculate the perimeter of this square paddock.



4. Write the number represented by each set of tally marks.

Witchetty grub	𝍸 𝍸 𝍸 𝍸 𝍸 25
Honey ant	𝍸 𝍸 I
Lilly pilly	𝍸 𝍸 𝍸 𝍸 𝍸 IIII
Emu Apple	𝍸 𝍸 𝍸 𝍸 II

5. Count the money and write the amount as dollars and cents.





_____

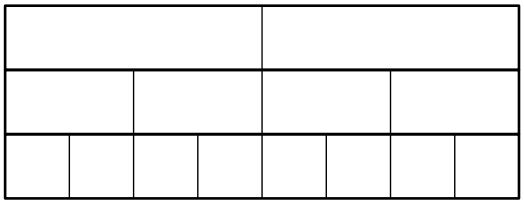
6. Divide:

369 ÷ 3 = ___

248 ÷ 2 = ___

Test D4

1. Use the diagram to find the equivalent fractions.



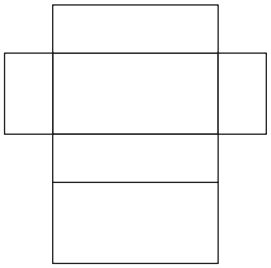
$\frac{1}{4} = \frac{\quad}{8}$ $\frac{1}{4} = \frac{\quad}{8}$ $\frac{6}{8} = \frac{\quad}{4}$

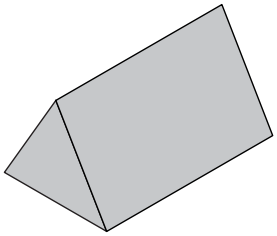
$\frac{4}{8} = \frac{\quad}{4}$ $\frac{1}{2} = \frac{\quad}{8}$ $\frac{1}{2} = \frac{\quad}{4}$

2. Label the angles. Write A for acute, R for right or O for obtuse in the box next to each angle.

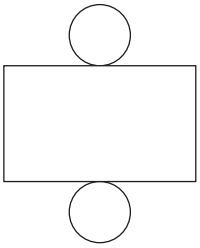


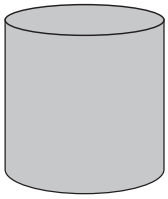
3. Match the shape to its net and its name.



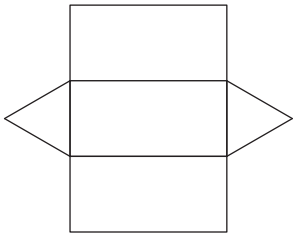


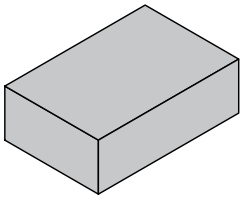
cylinder





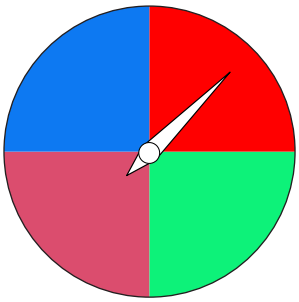
triangular prism

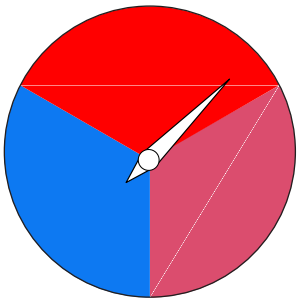


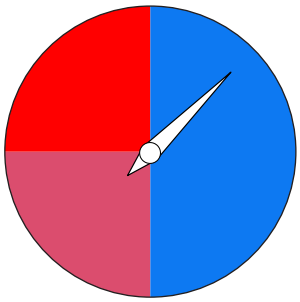


rectangular prism

4. Circle the picture that shows a spinner with fifty-fifty chance of landing blue.







Lesson Practice

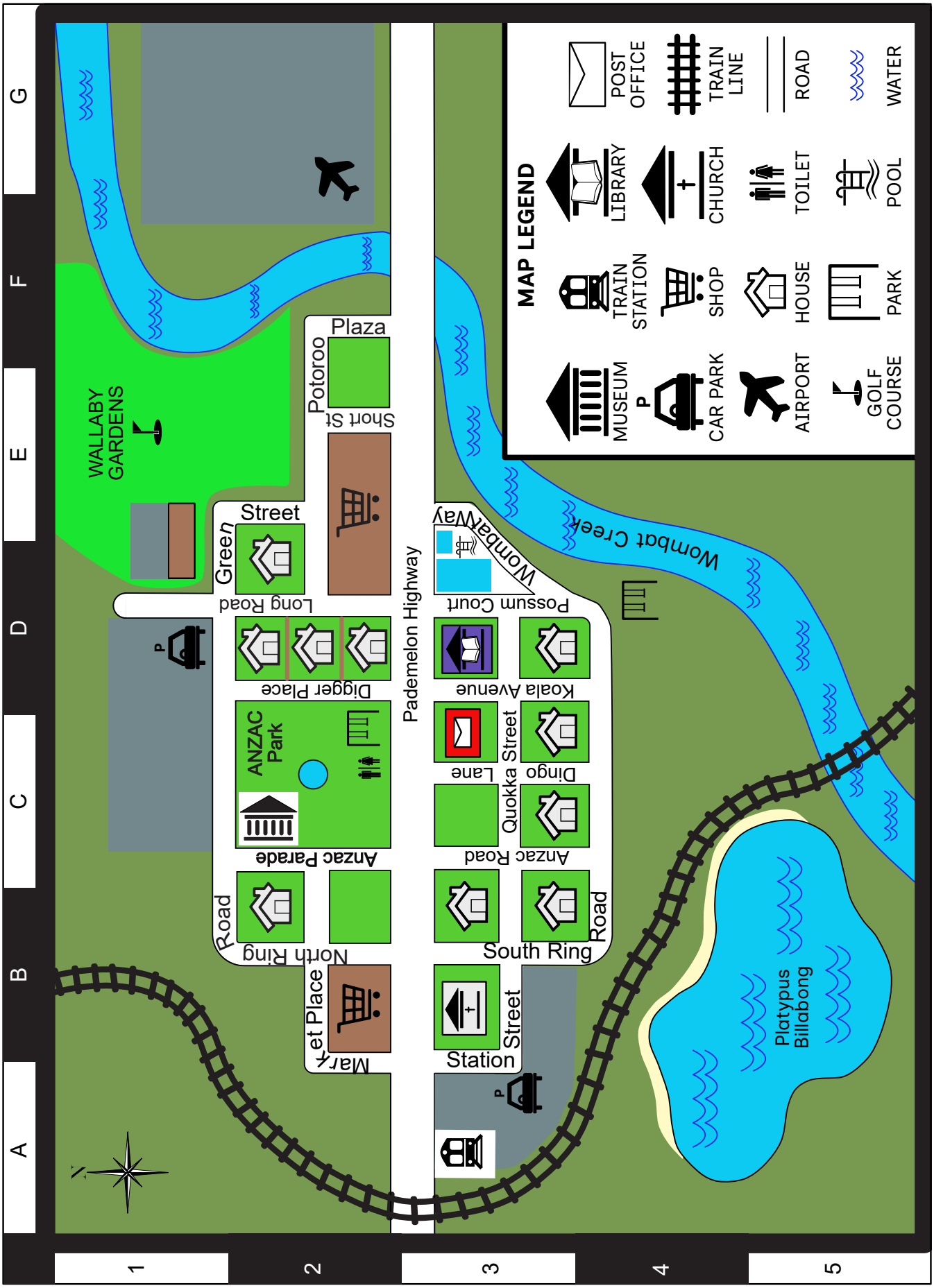
Answer the questions using the map of Wombat Creek on the next page.

1. What public place is at C2? _____
2. Give the map reference of two shops. _____
3. What transport is available at A3? _____
4. Where is the airport? _____
5. What natural feature is at B5? _____
6. Where is the post office? _____
7. Give the map reference of a place you could play on a swing. _____
8. What game would you play at E1? _____
9. Where are the swimming pools? _____
10. Give the map reference of one car park. _____

Your turn!

Write your own questions about the map. Give the answers in another colour.

Map of Wombat Creek



Test E1

$7 \times 8 =$ _____

$9 \times 2 =$ _____

$8 \times 9 =$ _____

$3 \times 1 =$ _____

$5 \times 3 =$ _____

$2 \times 5 =$ _____

$4 \times 6 =$ _____

$6 \times 4 =$ _____

$1 \times 7 =$ _____

$7 \times 3 =$ _____

$4 \times 9 =$ _____

$2 \times 8 =$ _____

$1 \times 7 =$ _____

$5 \times 6 =$ _____

$8 \times 1 =$ _____

$9 \times 5 =$ _____

$3 \times 4 =$ _____

$6 \times 2 =$ _____

$769 \times 1000 =$ _____

$2 \times 10000 =$ _____

$542 \times 100 =$ _____

$9690 \div 10 =$ _____

Round these numbers to the nearest 10, 100 and 1000.

	425	9738	42	873	7352	89
Nearest 10						
Nearest 100						
Nearest 1000						

Decide if the answer to each of these calculations will be odd (O) or even (E). **Do not find the answers**

70 + 52 = ____ 45 + 46 = ____ 60 × 80 = ____

60 + 80 = ____ 70 × 52 = ____ 45 × 46 = ____

$$\begin{array}{r} 980 \\ -\ 502 \\ \hline \end{array} \qquad \begin{array}{r} 42 \\ \times\ 2 \\ \hline \end{array} \qquad \begin{array}{r} 64 \\ \times\ 60 \\ \hline \end{array} \qquad \begin{array}{r} 76 \\ \times\ 13 \\ \hline \end{array} \qquad 6\overline{)546}$$

Solve the missing number equations.

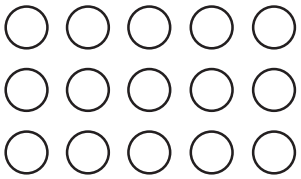
____ × 4 = 348

46 + ____ = 100

Test E2

Shade the fraction indicated.

$\frac{3}{5}$ 

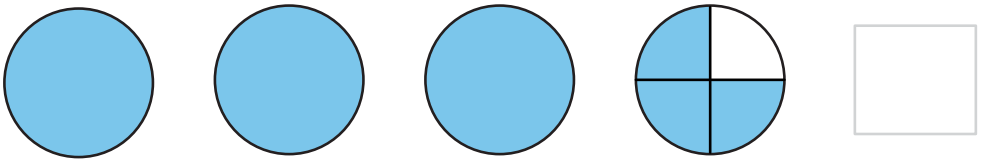
$\frac{1}{3}$ 

Find the fractions.

$\frac{1}{5}$ of 25 = ÷ =

$\frac{1}{9}$ of 45 = ÷ =

Write the mixed number shaded.



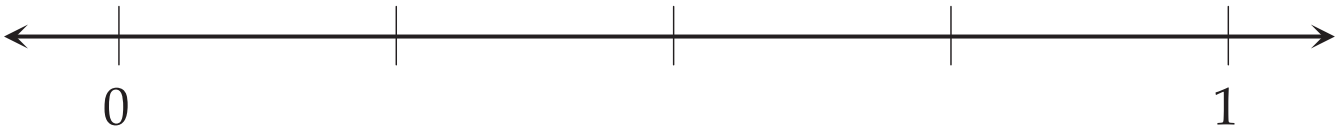
Find the equivalent fractions.

$\frac{6}{9} = \frac{}{3}$ $\frac{4}{10} = \frac{}{5}$ $\frac{1}{3} = \frac{}{6}$ $\frac{3}{4} = \frac{}{8}$

Compare the fractions (<, =, >).

$\frac{1}{3}$ $\frac{2}{3}$ $\frac{1}{5}$ $\frac{1}{4}$ $\frac{2}{6}$ $\frac{5}{6}$

Complete the number line by labelling the fractions.



Solve.

$\frac{2}{6}+\frac{3}{6}=$

$\frac{1}{4}+\frac{1}{8}=\frac{\quad}{8}+\frac{1}{8}=$

$\frac{2}{3}-\frac{1}{3}=$

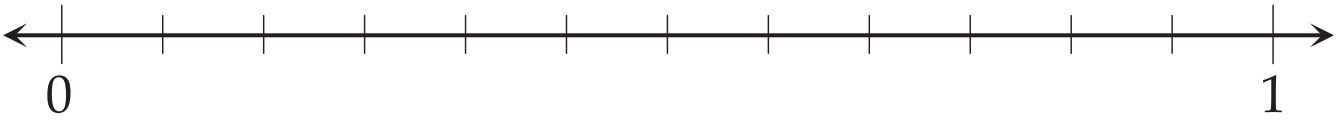
$\frac{3}{4}-\frac{1}{8}=\frac{\quad}{8}-\frac{1}{8}=$

$\frac{1}{2}+-=1$

$\frac{1}{6}+-=\frac{2}{6}$

Plot the fractions.

$\frac{1}{2}$ $\frac{2}{12}$ $\frac{2}{6}$ $\frac{3}{4}$ $\frac{4}{12}$



Convert to decimals:

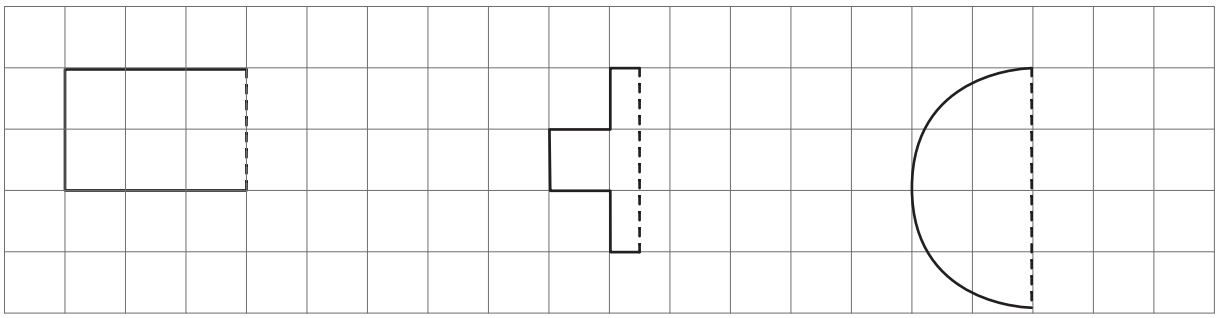
$\frac{1}{10}=$ $\frac{9}{10}=$ $\frac{3}{5}=\frac{\quad}{10}=$

Copy and solve.

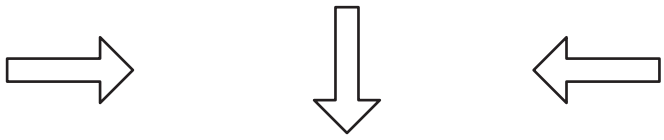
43.72 + 81.56 73.51 - 29.48

Test E3

Draw the other half of each shape assuming the dotted line is an axis of symmetry



Draw the next shape in the sequence.



What fraction of a turn do each of these angles represent?

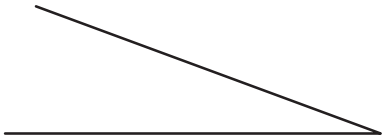
eg

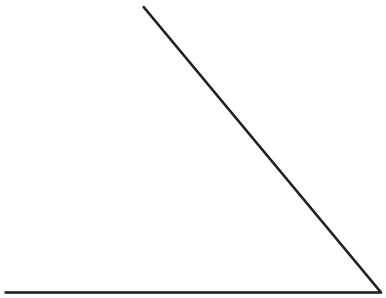


Label each angle as acute (A), right (R), obtuse (O), straight (S) or reflex (RF)



Measure the angles.





Write the next number in each sequence.

8, 10, 12, 14, _____

3, 9, 27, _____

240, 120, 60, 30, ___

20, 18, 16, 14, ___

21, 19, 17, 15, _____

95, 90, 85, 80, ___

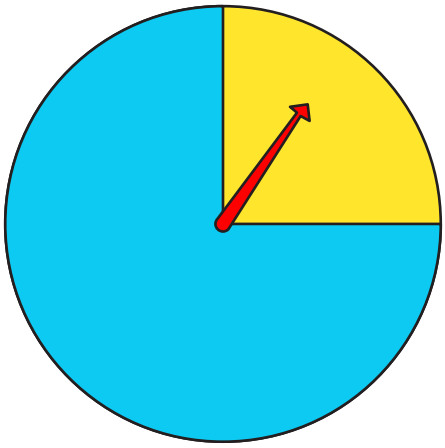
4, 7, 10, 13, 16, _____

10,000; 1000; 100, ___

7, 11, 15, 19, _____

1, 5, 25, ___

If you were to spin the spinner below 1000 times and record your results, which colour would likely be the most common?



Test E4

Bananas were selling for 97c each. If Dingo Dan bought 5 bananas, what did it cost him?

Dan paid for the bananas with a ten dollar note. How much change did he receive?

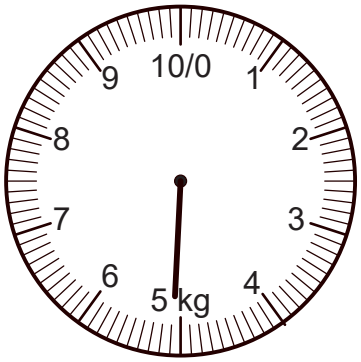
Kate got on the coach at 10:20am. She got off the coach when it arrived at Brisbane at 3:05pm. How long did Kate spend on the coach?

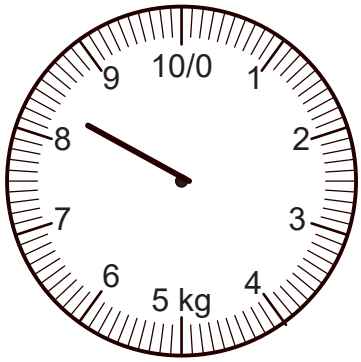
How many minutes are there in 4 hours and 25 minutes?

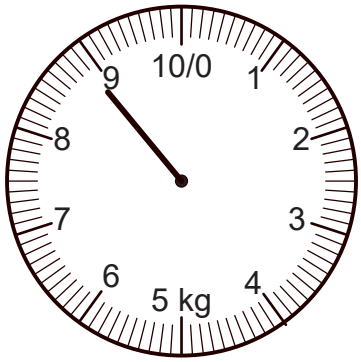
How many seconds are there in 1 minute and 30 seconds?

Measure and write the length of each line as a decimal on the line.

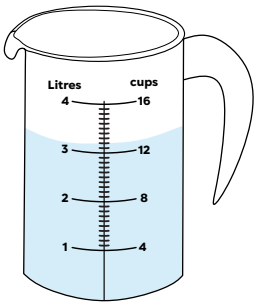
Write the weights as decimal numbers.

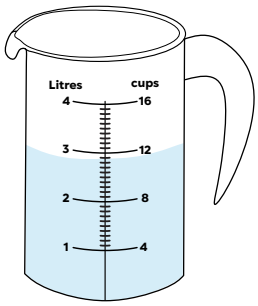


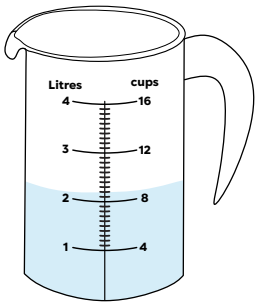


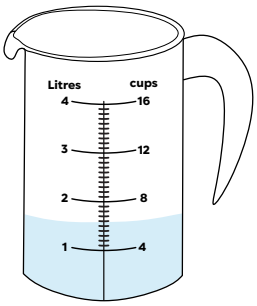


Write the volumes as decimal numbers.









Find the area of the shaded section of each shape.

