Tuesday

		35
		12
21	20	X

In the 2x2 multiplication square below, the boxes at the end of each row and the foot of each column give the result of multiplying the two numbers in that row or column.

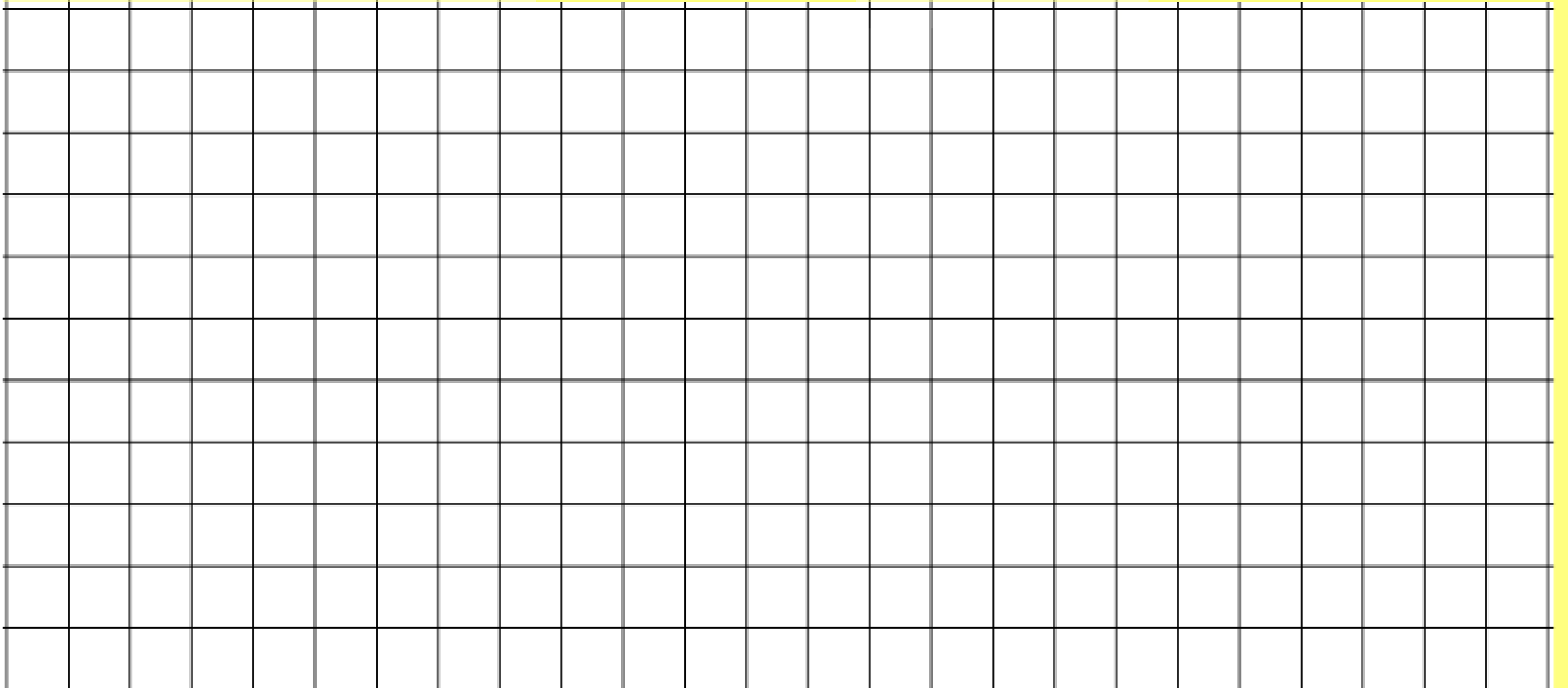The 3x3 multiplication square below works in the same way.

The boxes at the end of each row and the foot of each column give the result of multiplying the three numbers in that row or column.

The numbers 1-9 may be used once and once only.

			15
			108
			224
144	8	315	X

The perimeter of a regular hexagon is 84.63m.
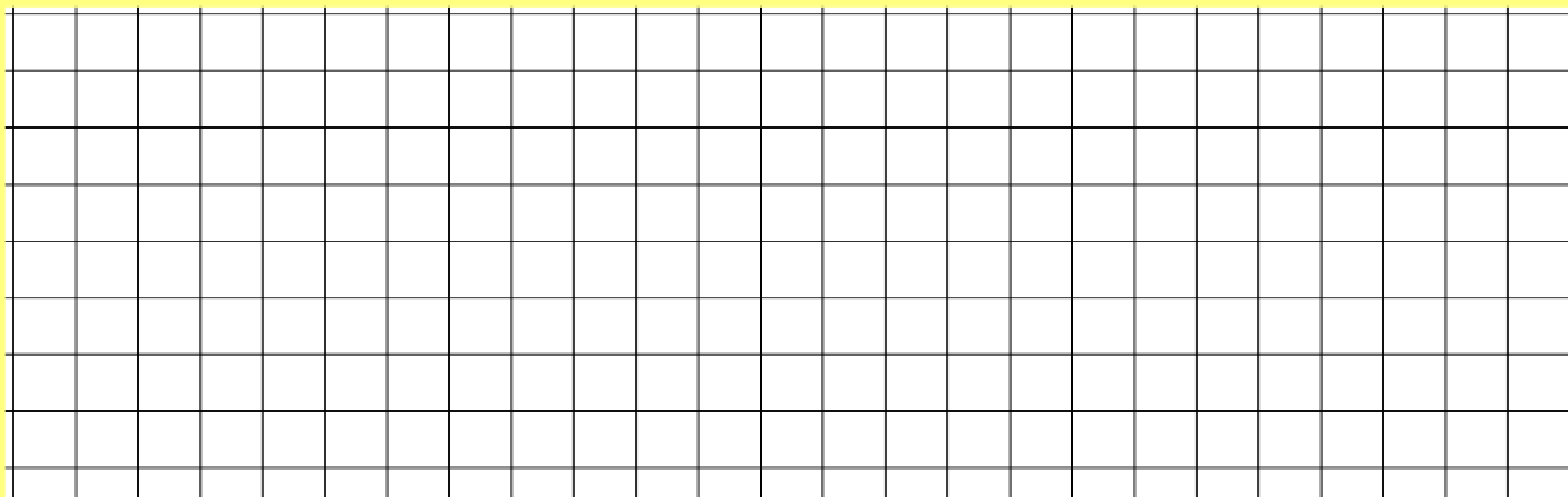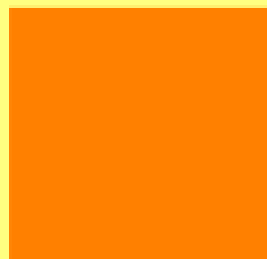What is the length of each side in cm?

What methods do we try to use first?

Mental (partition, related facts), Chunking.

A. $426 \div 6 =$

B. $3600 \div 9 =$

C. $590 \div 14 =$

$$15 \overline{)40.5}$$

$$
\begin{array}{r}
-\ 30.0 \\
\hline
10.5 \\
-\ 10.5 \\
\hline
00.0
\end{array}
$$

2 x

0·7 x

Key facts

2 x	3 0
3 x	4 5
0·5 x	7·5

1. Shereen bought some packs of 6 cards.
   Altogether she had 30 cards.
   How many packs of 6 cards did she buy?

2. Plants are sold in trays of 20.
   David wants 240 plants.
   How many trays does he need to buy?

3. One length of a swimming pool is 25 metres.
   How many lengths are there in a 150 metre race?

1. Jenny thought of a number.
   She doubled it, then added four.
   The answer was eighty-eight.
   Which number did she think of?

2. Eggs are put in trays of 12.
   The trays are packed in boxes.
   Each box contains 180 eggs.
   How many trays are in each box?

3. Some children go camping.
   There are 70 children.
   Each tent takes up to 6 children.
   What is the least number of tents they will need?

4. Parveen buys 3 small bags of peanuts.
   She gives the shopkeeper £2 and gets 80p change.
   What is the cost in pence of one bag of peanuts?

5. Raisins cost 80p for 100 grams.
   Jack pays £2 for a bag of raisins.
   How many grams of raisins does he get?

6. Peter says: 'I'm thinking of a number.
   I multiply it by 10 and add 25.
   My answer is 100.'
   What is the number?

7. Jemma thinks of a number.
   She says: 'Add 3 to my number and then multiply the result by 5.
   The answer is 35.'
   What is Jemma's number?

8. A spoonful of medicine is 5ml.
   How many spoonfuls can you get from a 375 ml bottle?

9. Michelle has saved £8.40 in 20p coins.
   How many 20p coins does Michelle have?

10. Guide books for the waxworks cost £1.50 each.
    The waxworks sells £24 worth of guide books.
    How many guide books is this?

11. Programmes for a school concert cost 15p each.
    Selling programmes raises £12.30.
    How many programmes are sold?

12. A box holds 6 eggs.
    How many boxes are needed to hold 52 eggs?

13. Some children do a sponsored walk.
    Lynne wants to raise £100.
    She is sponsored for £6.50 for each lap.
    What is the least number of whole laps she must do?

1. There is 60 g of rice in one portion.
   How many portions are there in a 3 kg bag of rice?

2. Programmes for a sports event cost 65p each.
   The total money from programme sales is £612.95.
   How many programmes are sold?

3. 427 children visit a castle.
   They go in groups of 15. One group has less than 15.
   Every group of children has one adult with them.
   How many adults will need to go?

4. Every day a machine makes 100 000 paper clips which go into boxes.
   A full box has 120 paper clips.
   How many full boxes can be made from 100 000 paper clips?

5. Each paper clip is made from 9.2 centimetres of wire.
   What is the greatest number of paper clips that can be made from 10 metres of wire?

6. Sima thinks of a number.
   She divides it by 12.
   Her answer is 26.
   What is the number Sima thinks of?

7. The distance from Calais to Paris is 320 kilometres.
   5 miles is approximately 8 kilometres.
   Calculate the approximate distance in miles from Calais to Paris.

8. Samira bought a present in France.
   She paid 44.85 French francs for it.
   9.75 French francs equalled £1.
   What was the cost of the present in pounds and pence?

Leena buys balloons, hats and masks for a party.
Write the missing numbers in the table.

	Cost of Each (£)	Number bought	Total cost (£)
Packets of balloons	4.95	5	24.75
Hats	3.20	?	41.60
Masks	?	10	19.50

Explain how you could **estimate** the answer to this division question: $1180 \div 29 = ?$

Find the answer to each of the following:

$207 \div 23$ $976 \div 61$ $872 \div 55$

A family drove 750km to the South of France for their holiday. Their car does on average, 23km per litre of petrol. How many litres of petrol did they need to buy to get there?

I bought some pencils that cost 15p each. I paid £5.85. How many pencils did I buy?

Jackie buys a pack of 24 cans of cola for £6. What is the cost of 1 can?

If I know that $0.7 \times 8 = 5.6$, I also know that $5.6 \div 8 = 0.7$
How many other division facts can you think of that are related to it?

1. Shereen bought some packs of 6 cards.
   Altogether she had 30 cards.
   How many packs of 6 cards did she buy?

   $30 \div 6 =$
   5

2. Plants are sold in trays of 20.
   David wants 240 plants.
   How many trays does he need to buy?

   $240 \div 20$
   $= 12$

3. One length of a swimming pool is 25 metres.
   How many lengths are there in a 150 metre race?

   $150 \div 25$
   $= 6$

1. Jenny thought of a number.
   She doubled it, then added four.
   The answer was eighty-eight.
   Which number did she think of?

   $2n + 4 = 88$
   $2n = 84$
   $n = \underline{42}$

2. Eggs are put in trays of 12.
   The trays are packed in boxes.
   Each box contains 180 eggs.
   How many trays are in each box?

   $180 \div 12$
   $= \underline{15}$

3. Some children go camping.
   There are 70 children.
   Each tent takes up to 6 children.
   What is the least number of tents they will need?

   $70 \div 6 = 11\frac{2}{3}$
   (12 tents)

4. Parveen buys 3 small bags of peanuts.
   She gives the shopkeeper £2 and gets 80p change.
   What is the cost in pence of one bag of peanuts?

   $1.20 \div 3$
   $= 40p$

5. Raisins cost 80p for 100 grams.
   Jack pays £2 for a bag of raisins.
   How many grams of raisins does he get?

   $\frac{80p}{£2}$ $\frac{200}{80} \times 100$
   $\underline{250 g}$

6. Peter says: 'I'm thinking of a number.
   I multiply it by 10 and add 25.
   My answer is 100.'
   What is the number?

   $10n + 25 = 100$
   $\frac{10n}{10} = \frac{75}{10}$
   $n = 7.5$

7. Jemma thinks of a number.
   She says: 'Add 3 to my number and then multiply the result by 5.
   The answer is 35.'
   What is Jemma's number?

   $(n + 3) \times 5 = 35$
   $n + 3 = 7$
   $n = \underline{4}$

8. A spoonful of medicine is 5ml.
   How many spoonfuls can you get from a 375 ml bottle?

   $\frac{375}{5} = 75$

9. Michelle has saved £8.40 in 20p coins.
   How many 20p coins does Michelle have?

   $\frac{820}{20} = 42$

10. Guide books for the waxworks cost £1.50 each.
    The waxworks sells £24 worth of guide books.
    How many guide books is this?

    $24 \div 1.50$ (16)

11. Programmes for a school concert cost 15p each.
    Selling programmes raises £12.30.
    How many programmes are sold?

    82

12. A box holds 6 eggs.
    How many boxes are needed to hold 52 eggs?

    $8\frac{2}{3}$ so 9 boxes

13. Some children do a sponsored walk.
    Lynne wants to raise £100.
    She is sponsored for £6.50 for each lap.
    What is the least number of whole laps she must do?

    15·38 so 16 laps

1. There is 60 g of rice in one portion.
   How many portions are there in a 3 kg bag of rice?

   $3000 \div 60 = \underline{50}$

2. Programmes for a sports event cost 65p each.
   The total money from programme sales is £612.95.
   How many programmes are sold?

   943

3. 427 children visit a castle.
   They go in groups of 15. One group has less than 15.
   Every group of children has one adult with them.
   How many adults will need to go?

   $\frac{427}{15} = 28.46$

   28 groups of 15
   + 1 group of 7   29 adults

4. Every day a machine makes 100 000 paper clips which go into boxes.
   A full box has 120 paper clips.
   How many full boxes can be made from 100 000 paper clips?

   $833\frac{1}{3}$ so 833 boxes

5. Each paper clip is made from 9.2 centimetres of wire.
   What is the greatest number of paper clips that can be made from 10 metres of wire?

   108.69 so $\underline{108}$

6. Sima thinks of a number.
   She divides it by 12.
   Her answer is 26.
   What is the number Sima thinks of?

   $\frac{n}{12} = 26$ $n = 26 \times 12$
   312

7. The distance from Calais to Paris is 320 kilometres.
   5 miles is approximately 8 kilometres.
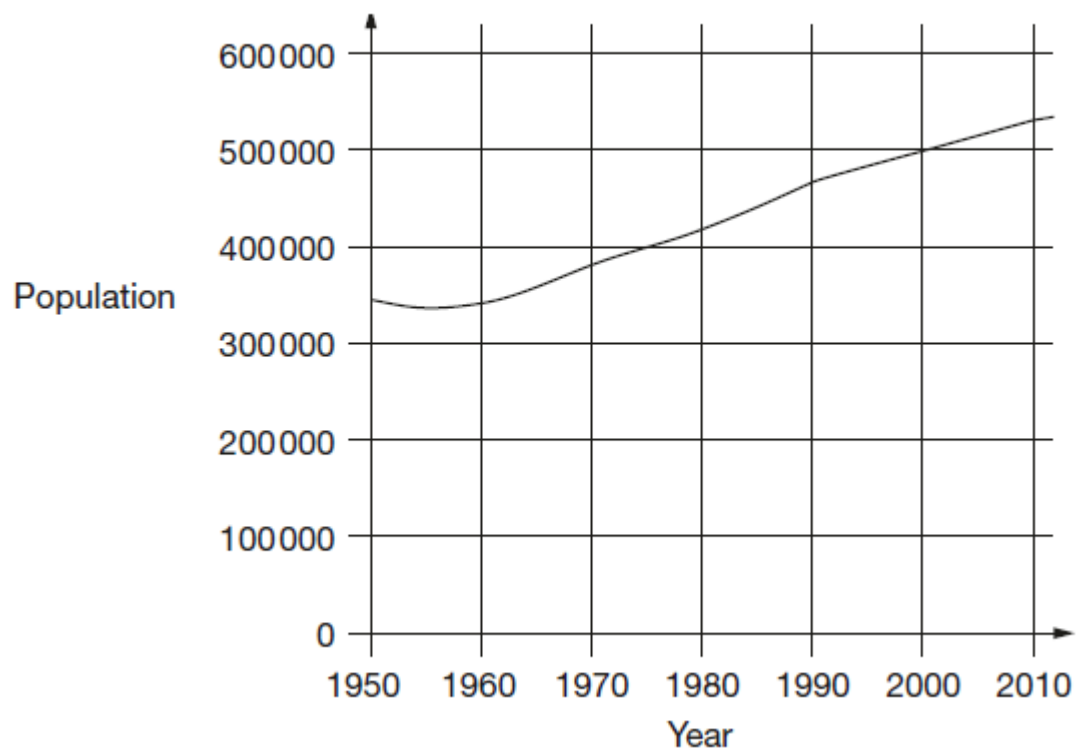   Calculate the approximate distance in miles from Calais to Paris.

   $\frac{320}{8} \times 5$
   200 miles.

8. Samira bought a present in France.
   She paid 44.85 French francs for it.
   9.75 French francs equalled £1.
   What was the cost of the present in pounds and pence?

   £4.60

This chart shows the population of Cornwall from 1950 to 2010.

In which year did the population first reach 400000?
How much did the population increase from 1950 to 2000?
What was the population of Cornwall in 2010?