Maths

Friday 23rd October

L.O. To use the standard written method for subtraction.

Examples

$$\begin{array}{r} 5\,\overset{7}{\cancel{8}}\,^{1}5.8 \\ -\,167.4 \\ \hline 418.4 \end{array}$$

$$\begin{array}{r} \overset{4}{\cancel{5}}\,4.\overset{6}{\cancel{7}}\,^{1}0 \\ -\,19.36 \\ \hline 35.34 \end{array}$$

$$\begin{array}{r} \overset{5}{\cancel{6}}.\overset{12}{\cancel{3}}\,\overset{14}{\cancel{3}}\,^{1}1 \\ -\,2.483 \\ \hline 3.868 \end{array}$$

17
$$\begin{array}{r} {}^{2\ 14\ 11\ 13}\\ 3\,\cancel{5}\,\cancel{2}\,\cancel{3} \\ -\,1769 \\ \hline 1754 \end{array}$$

18
$$\begin{array}{r} 4362 \\ -\,2876 \\ \hline 1486 \end{array}$$

19
$$\begin{array}{r} 5615 \\ -\,1587 \\ \hline 4028 \end{array}$$

20
$$\begin{array}{r} 2237 \\ -\,1939 \\ \hline 298 \end{array}$$

21
$$\begin{array}{r} 6170 \\ -\,3898 \\ \hline 2272 \end{array}$$

6
$$\begin{array}{r} 94.07 \\ -\,47.36 \\ \hline 46.71 \end{array}$$

7
$$\begin{array}{r} 6.091 \\ -\,3.548 \\ \hline 2.543 \end{array}$$

8
$$\begin{array}{r} 623.4 \\ -\,576.3 \\ \hline 47.1 \end{array}$$

11
$$\begin{array}{r} 85.20 \\ -\,43.46 \\ \hline 41.74 \end{array}$$

12
$$\begin{array}{r} 608.5 \\ -\,162.7 \\ \hline 445.8 \end{array}$$

13
$$\begin{array}{r} 7.147 \\ -\,4.570 \\ \hline 2.577 \end{array}$$

Please complete at least two sections in your homework book. Make sure you use a ruler to draw the answer boxes and don't forget your decimal point.

Answers will be on tomorrow's Powerpoint.

4
$$\begin{array}{r} 3\ 5\ 1\ 4\ 2 \\ -\,2\ 6\ 7\ 9\ 3 \\ \hline 8\ 3\ 4\ 9 \end{array}$$

5
$$\begin{array}{r} 6\ 4\ 2\ 3\ 5 \\ -\,2\ 3\ 6\ 8\ 9 \\ \hline 4\ 0\ 5\ 4\ 6 \end{array}$$

6
$$\begin{array}{r} 9\ 3\ 5\ 7\ 1 \\ -\,3\ 4\ 8\ 2\ 3 \\ \hline 5\ 8\ 7\ 4\ 8 \end{array}$$

10
$$\begin{array}{r} 8\ 2\ 4\ 1\ 0 \\ -\,5\ 4\ 7\ 5\ 2 \\ \hline 2\ 7\ 6\ 5\ 8 \end{array}$$

11
$$\begin{array}{r} 5\ 1\ 3\ 2\ 4 \\ -\,3\ 9\ 6\ 7\ 5 \\ \hline 1\ 1\ 6\ 4\ 9 \end{array}$$

12
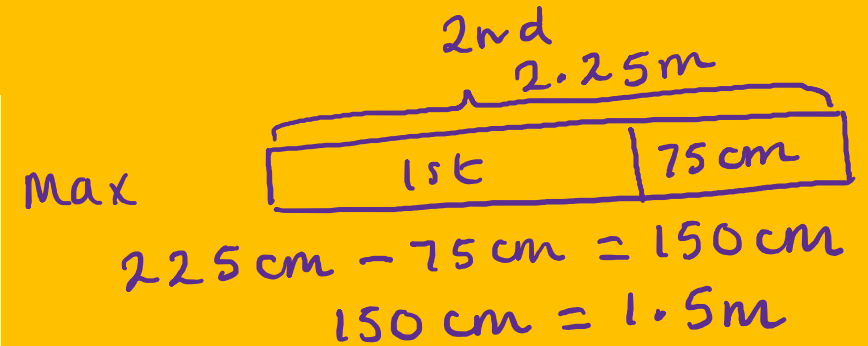$$\begin{array}{r} 4\ 0\ 8\ 5\ 3 \\ -\,1\ 6\ 1\ 7\ 9 \\ \hline 2\ 4\ 6\ 7\ 4 \end{array}$$

Please watch Miss Terrell's tutorial video.

Check your work from yesterday.

Challenge

Max jumped 2.25 metres on his second try at the long jump.
This was 75 cm longer than on his first try.
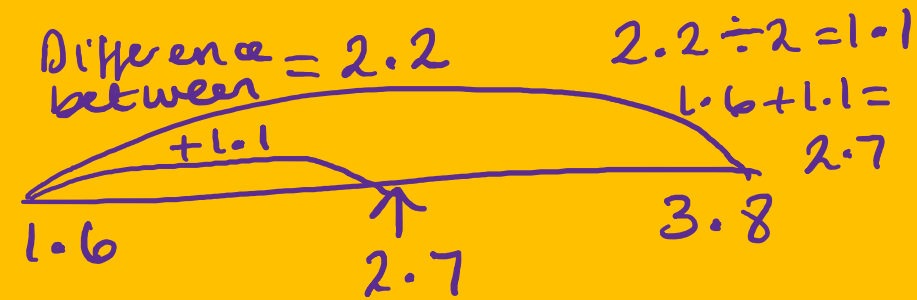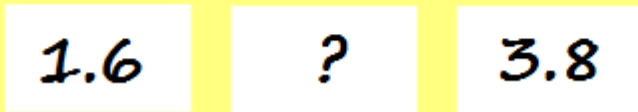How far in metres did he jump om his first try?   1.5 m

2nd
2.25m

Max

1st   75cm

$225cm - 75cm = 150cm$
$150 cm = 1.5m$

$51 - 45 = 6$
so $5.1 - 4.5 = 0.6$ ($10 \times$ smaller)
$510 - 450 = 60$
$51 - 6 = 45$
$5.1 - 0.6 = 4.5$ $0.51 - 0.45 = 0.06$ $5100 - 4500 = 600$ and so on...

If 45 subtracted from 51 is 6, what would 4.5 subtracted from 5.1 be?
Think of five more subtractions using related numbers.

What number lies exactly half way between 1.6 and 3.8?

| 1.6 | ? | 3.8 |

Difference = 2.2
between
$+1.1$
1.6   2.7

$2.2 \div 2 = 1.1$
$1.6 + 1.1 = 2.7$
3.8

Use the inverse

$460 + 155 = 615$
$615 - 273 = 342$

I'm thinking of a number. I add 273 to it and then subtract 155 from this answer. I get 460.
What is my original number? 342
Change the instructions so that there is only one step instead of two.

?
... I add 118 and I get 460. What is my number?

Using and applying subtraction methods…

Today, you are going to solve problems involving subtraction.

You will need to choose which is the most efficient method.

Ask yourself…can I do it mentally with jottings?

If the answer is no, then you will need to use the standard written method.

If you can do it mentally, please show your working out.

Problem Solving

Read through the following problems. Pick out the **subtraction** ones and **only** do those. For each one, think about the best method.

- Sam earns £1 653 per month. He pays £575 rent.
  1 ○ How much money does he have left?

- A cinema was showing the latest Harry Potter film on Saturday. They sold 257 child tickets and
  2 178 adult tickets.
     ○ What was the total number of tickets they sold?

- Annie and Adrian are driving to Newcastle. The distance they have to drive is 423 miles. After 2
  hours they have travelled 218 miles.
  3 ○ How much further do they have to go?

- 244 people got on the Bristol to Birmingham train. At Cheltenham, 97 people got off.
  4 ○ How many people were left on the train?

- Mr. and Mrs. Drew sold their house for £180 500. They sold some kitchen appliances, curtains
  5 and carpets for £2 750.
     ○ What was the total amount of money they made?

- Last year my uncle bought a car for £15 230. A year later he sold it for £13 750
  6 ○ How much money did he lose?

Vocabulary
subtract, subtraction, take away, minus, decrease, how many more? how many fewer? difference, inverse, calculation, problem, mental, strategy, jotting, method, operation, sign, how did you work it out? multi-step, equation, accuracy

Choose 12 to complete from the next 3 pages.

Make sure you choose **only** the ones that involve **subtraction**. Look for key vocabulary for subtraction.

Check your answers on today's website page.

- The flight to Jamaica costs £564. If you stay at Jake's on Treasure Beach it costs £72 a night. I want to go for a week.
  - How much would it cost?

7

- In Delhi you can rent an elephant for a morning. It costs 2 350 rupees. If you rent it for an afternoon it costs 1 970 rupees.
  - How much can you save by waiting until the afternoon?

8

- In a hotel in France, a double room costs £98.25. An apartment costs £193.
  - How much do you save if you stay in the double room in the hotel?

9

- A Batman lunch pack costs £8.65 and a New York Yankees backpack costs £12.99.
  - What's the difference in the price?

10

- A Nike backpack costs £18.95.
  - How much would I save if I bought a New York backpack rather than a Nike one?

11

- You can go to Namibia for 10 days for £999 if you go on 2nd December. If you go on 7th April it costs £1399.
  - How much more does it cost in April?

12

- A Toyota Yaris car costs £7 525. If you don't have metallic paint, it costs £7 478.
  - How much do you save if you don't have the metallic paint?

13

Problem Solving

- My book has 1 234 pages. I'm on page 867.
  14 o How many more pages until I finish the book?

- A pack of ordinary loom bands costs £2.65. Glittery ones cost £3.99
  15 o What's the difference in the price?

- A concert hall can seat 968 people in the stalls and 1 347 in the rest of the seating areas.
  16 o What is the total number of seats?

- Dad says he's got £2 787 in his bank account and £14 678 in his post office account.
  17 o How much has he saved altogether?

- Dad has £567 in his bank account and this month he has spent £1 232.
  18 o How much is he in debt?

- In 2013, 12 643 homes were sold. In 2014, 10 878 homes were sold.
  19 o How many more homes were sold in 2013?

- If you borrow £5 000 from the post office, you will pay £153.68 interest. If you borrow the same
  20 amount from the bank you will pay £155.
      o What is the difference in the amount you will pay?

Challenge. Now have a go at these…

The difference between two two-digit numbers is 13. What could the two-digit numbers be? If one of the numbers is between 50 and 60 what could the numbers be?

John is thinking of two numbers.
The difference between them is 5.6.
Find five pairs of numbers with this difference.

| ? | − 5.6 = | ? |