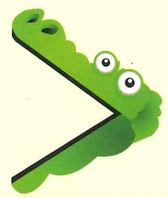
6-digit numbers

Write these numbers in figures and then put them in order from smallest to largest.

1. Two hundred and fifty-three thousand, four hundred and nineteen
2. Nine hundred and four thousand, five hundred and sixty-eight
3. Seven hundred and forty-eight thousand, three hundred and fifteen

Copy these pairs of numbers and write < or > between them.

4. 253 670 ___ 261 984
5. 427 094 ___ 416 940
6. 716 205 ___ 617 205
7. 606 899 ___ 607 007
8. 911 919 ___ 919 199
9. 787 878 ___ 787 787



Complete these subtractions.

10. 985 613 – ☐ = 905 613
11. 410 763 – ☐ = 410 063
12. 826 495 – ☐ = 26 495
13. 745 522 – ☐ = 740 522
14. 601 304 – ☐ = 1304
15. 520 482 – ☐ = 520 402

Using the digits 1–6, write a number as close as possible to 500 000.

I am confident with reading and writing 6-digit numbers.

Write these numbers in figures. Then put the < or > sign between them.

1. Five hundred and sixty-two thousand, and forty-five
   Five hundred and three thousand, four hundred and fifty-two

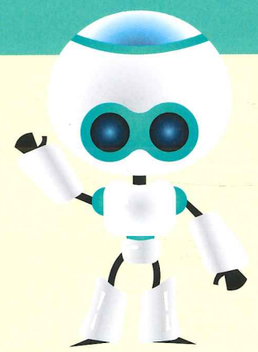
☐ ☐

Write < or > between these numbers.
Write two numbers that come between each pair.

2. 452 604 ___ 425 640
3. 301 234 ___ 310 432
4. 824 215 ___ 824 511
5. 703 462 ___ 730 462

Complete these subtractions.

6. 555 555 – ☐ = 505 550
7. 555 555 – ☐ = 550 055
8. 555 555 – ☐ = 505 050
9. 555 555 – ☐ = 550 505



Using two different digits (neither is 5!) and four zeros, what is the closest number you can make to 555 555?

I am confident with reading and writing 6-digit numbers.

1-place, 2-place and 3-place decimals

Work out the answers to the calculations. Use the place-value grid to help you.

$3{\cdot}17 \times 10 = 31{\cdot}7$

$48\,506 \div 100 = 485{\cdot}06$

	10 000s	1000s	100s	10s	1s	•	0·1s	0·01s
× 10					3	•	1	7
				3	1	•	7	
÷ 100	4	8	5	0	6			
				4	8	5	•	0	6

1. $6345 \div 10 = \square$
   $6345 \div 100 = \square$
   $6345 \div 1000 = \square$

2. $73\,652 \div 10 = \square$
   $73\,652 \div 100 = \square$
   $73\,652 \div 1000 = \square$

3. $30\,060 \div 10 = \square$
   $30\,060 \div 100 = \square$
   $30\,060 \div 1000 = \square$

4. $36{\cdot}24 \times 10 = \square$
   $36{\cdot}24 \times 100 = \square$
   $36{\cdot}24 \times 1000 = \square$

5. $188{\cdot}4 \times 10 = \square$
   $188{\cdot}4 \times 100 = \square$
   $188{\cdot}4 \times 1000 = \square$

6. $1{\cdot}572 \times 10 = \square$
   $1{\cdot}572 \times 100 = \square$
   $1{\cdot}572 \times 1000 = \square$

THINK

A number is divided by 100. The answer is 0·03. What was the number?

I am confident with reading 1-place and 2-place decimals and multiplying and dividing by 10, 100 and 1000.

Work out the answers to the calculations. Use the place-value grid to help you.

1. $43{\cdot}06 \times \square = 4306$
2. $7242{\cdot}1 \times \square = 724\,210$
3. $846\,250 \div \square = 8462{\cdot}5$
4. $34{\cdot}62 \times \square = 34\,620$
5. $78\,846 \div \square = 788{\cdot}46$
6. $354{\cdot}13 \times \square = 3541{\cdot}3$
7. $71\,700 \div \square = 71{\cdot}7$
8. $64{\cdot}6 \times \square = 64\,600$
9. $5390 \div \square = 5{\cdot}39$
10. $400{\cdot}06 \times \square = 40\,006$

THINK

Paige thinks of a whole number less than 2000. When this number is divided by 100 the answer ends in the digits 0·6. What is the number Paige is thinking of?

I am confident with reading 1-place and 2-place decimals and multiplying and dividing by 10, 100 and 1000.

Write < or > between the numbers.

1. 5·624 ☐ 5·523
2. 4·174 ☐ 4·721
3. 6·143 ☐ 6·056
4. 0·468 ☐ 0·621

Write all six numbers from the grid below in order, from the smallest to the largest.

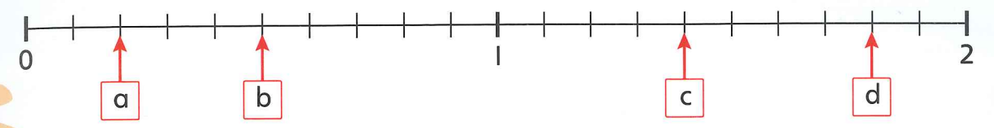
5

	1s	$\frac{1}{10}$s 0·1s	$\frac{1}{100}$s 0·01s	$\frac{1}{1000}$s 0·001s
a	4	2	5	3
b	5	3	4	2
c	4	5	2	3
d	4	3	5	2
e	5	4	2	3
f	5	3	2	4

Use the digits 1–4 to write three numbers between 2 and 3 that are 3-place decimals. Write them in order from the smallest to the largest.

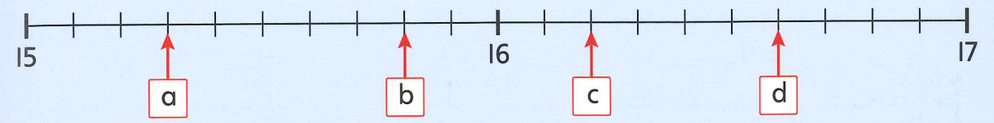
I am confident with reading and ordering 1-, 2- and 3-place decimals.

Write which number each arrow is pointing at. Then write it rounded to the nearest whole number.



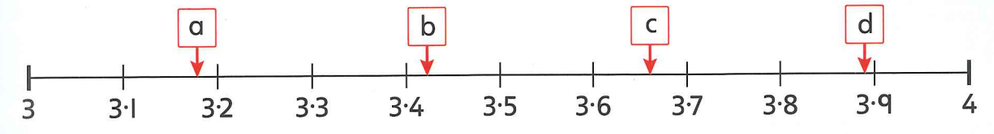
a = 0·2 0

1. b = ☐ ☐
2. c = ☐ ☐
3. d = ☐ ☐



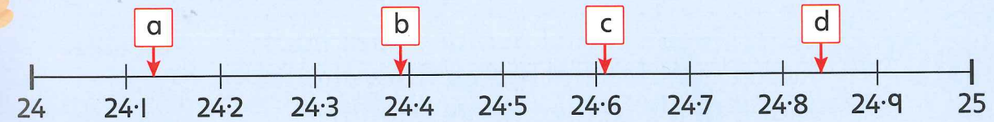
4. a = ☐ ☐
5. b = ☐ ☐
6. c = ☐ ☐
7. d = ☐ ☐

Write which number each arrow is pointing at. Then write it rounded to the nearest tenth.



a = 3·18 3·2

8. b = ☐ ☐
9. c = ☐ ☐
10. d = ☐ ☐



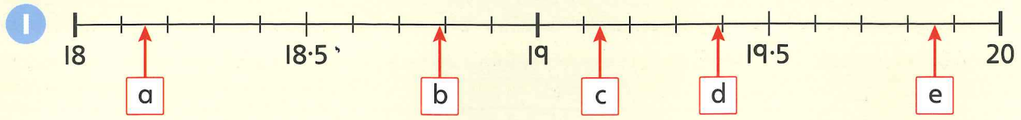
11. a = ☐ ☐
12. b = ☐ ☐
13. c = ☐ ☐
14. d = ☐ ☐

Write three decimal numbers. Each must have two decimal places that round to 0·5 as their nearest tenth. One must have 1 as one of its digits.

I am confident with reading and rounding 1-, 2- and 3-place decimals.

Copy this number line as large as you can. Copy and complete the table to go with it.

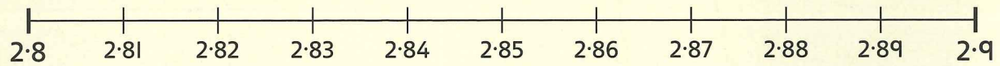
1



	Number	Rounded to nearest tenth	Rounded to nearest whole number
a			
b			
c			
d			
e			

2 Copy this number line and mark on these four numbers:

2·827 2·844 2·881 2·898

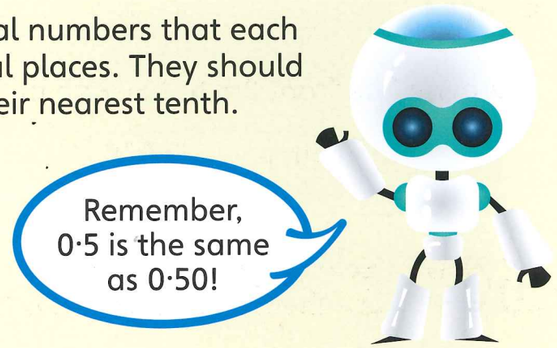


3 Draw a line from 4·8 to 5·1 with all the hundredths marked.
Write on:

4·917 4·884 5·026 5·057

THINK

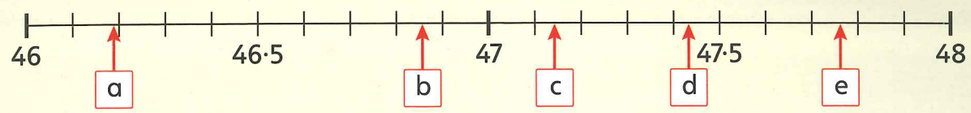
Write three decimal numbers that each have three decimal places. They should round to 0·5 as their nearest tenth.



I am confident with reading 1-, 2- and 3-place decimals.

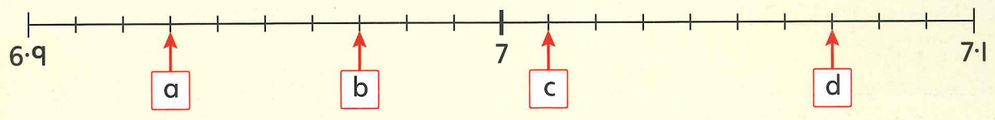
Copy this number line as large as you can. Copy and complete the table to go with it.

1



	Number	Rounded to nearest tenth	Rounded to nearest whole number
a			
b			
c			
d			
e			

2 Copy and complete this table and correct any mistakes..



	Number	Rounded to nearest tenth	Rounded to nearest whole number
a			7
b		7	
c	7·01		
d			7·1

3 Draw a line from 11·8 to 12·1 with all the hundredths marked.
Write on:

11·811 12·079 11·856 11·933

THINK

How many decimal numbers with three decimal places are there that round to 0·55 as their nearest hundredth?

I am confident with reading 1-, 2- and 3-place decimals.

Converting fractions and decimals

Write the equivalent fraction or decimal for each question.

1. $\frac{1}{10} = \square$
2. $0{\cdot}6 = \square$
3. $\frac{7}{10} = \square$
4. $0{\cdot}9 = \square$
5. $\frac{27}{100} = \square$
6. $0{\cdot}31 = \square$

7. $\frac{63}{100} = \square$
8. $0{\cdot}19 = \square$
9. $\frac{1}{4} = \square$
10. $0{\cdot}01 = \square$
11. $\frac{3}{100} = \square$
12. $0{\cdot}07 = \square$

Copy and complete these questions.

13. $0{\cdot}75 = \frac{\square}{100} = \frac{3}{\square}$
14. $0{\cdot}05 = \frac{\square}{100} = \frac{1}{\square}$
15. $0{\cdot}24 = \frac{\square}{100} = \frac{6}{\square}$
16. $0{\cdot}96 = \frac{\square}{100} = \frac{\square}{25}$

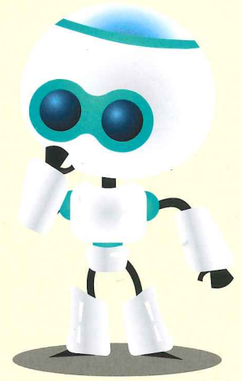
THINK

Write a 2-place decimal number which is less than 1 and has one zero after the decimal point. Then write it as a fraction.

I am confident with converting between fractions and decimals.

Write the equivalent fraction or decimal for each question.

1. $\frac{53}{100} = \square$
2. $0{\cdot}75 = \square$
3. $0{\cdot}23 = \square$
4. $\frac{91}{100} = \square$



5. $0{\cdot}7 = \square$
6. $\frac{1}{4} = \square$
7. $\frac{3}{10} = \square$
8. $0{\cdot}09 = \square$

Write the equivalent fraction or decimal for each question.

9. $\frac{456}{1000} = \square$
10. $0{\cdot}801 = \square$
11. $\frac{195}{1000} = \square$
12. $0{\cdot}327 = \square$
13. $0{\cdot}363 = \square$
14. $\frac{125}{1000} = \square$
15. $\frac{43}{1000} = \square$
16. $0{\cdot}009 = \square$

THINK

Write a 3-place decimal number which is less than 1 and has two zeros after the decimal point. Then write it as a fraction.

I am confident with converting between fractions and decimals.

Addition of whole numbers

Answer these additions using mental strategies.

1. 302 041 + 80 000 = ☐
2. 162 395 + 300 200 = ☐
3. 972 816 + 3023 = ☐
4. 375 562 + 20 030 = ☐
5. 634 436 + 2002 = ☐
6. 743 061 + 106 000 = ☐
7. 382 + 499 = ☐
8. 7095 + 801 = ☐
9. 463 + 399 = ☐
10. 4184 + 601 = ☐
11. 3072 + 702 = ☐
12. 4173 + 798 = ☐
13. 76 + 59 = ☐
14. 82 + 63 = ☐
15. 326 + 84 = ☐
16. 657 + 65 = ☐
17. 37 + 52 + 48 = ☐
18. 81 + 76 + 23 = ☐
19. 80 + 30 + 60 + 90 = ☐
20. 700 + 500 + 600 = ☐
21. 15 000 + 43 000 = ☐
22. 9000 + 3000 + 2000 + 8000 = ☐

THINK What clues do numbers give you to show they can be added in your head?

I am confident with solving additions with mental strategies.

Answer these additions using mental strategies.

1. 102 041 + 80 204 = ☐
2. 6085 + 903 = ☐
3. 70 + 40 + 50 + 90 = ☐
4. 406 301 + 310 400 = ☐
5. 836 + 84 = ☐
6. 1276 + 699 = ☐
7. 77 + 69 = ☐
8. 686 784 + 3006 = ☐
9. 700 + 900 + 800 = ☐
10. 3766 + 59 = ☐
11. 382 + 697 = ☐
12. 305 562 + 20 099 = ☐
13. 13 072 + 906 = ☐
14. 85 000 + 42 000 = ☐
15. 84 + 73 + 63 = ☐
16. 634 436 + 102 142 = ☐
17. 7268 + 598 = ☐
18. 47 + 71 + 59 = ☐
19. 683 069 + 104 300 = ☐
20. 5000 + 13 000 + 7000 = ☐
21. 847 + 74 = ☐
22. 4604 + 603 = ☐

THINK Add three numbers to get 100. No two digits in the question should be the same.

I am confident with solving additions with mental strategies.

Answer these additions using the column method.

6829 + 3134 + 5406 =

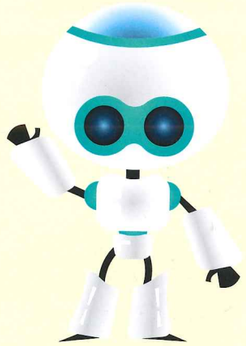
6000 + 800 + 20 + 9
3000 + 100 + 30 + 4
+ 5000 + 400 + 0 + 6
14000 1300 50 19 = 15369

```
 6 8 2 9
 3 1 3 4
+ 5 4 0 6
   1
 1 5 3 6 9
```

1. 37254 + 14432 = ☐
2. 93104 + 15237 = ☐
3. 36435 + 31829 = ☐
4. 56752 + 13189 = ☐
5. 85662 + 17635 = ☐

Answer these additions using the column method.

6. 6254 + 5162 + 5481 = ☐
7. 3285 + 1068 + 1476 = ☐
8. 3894 + 7542 + 4782 = ☐
9. 5828 + 4932 + 3932 = ☐
10. 8279 + 4478 + 6157 = ☐



THINK

If we add 6666 to 7777 do we get a number with lots of digits the same? Try it to see if your guess is right!

I am confident with solving additions using the column method.

Answer these additions using the column method.

31797 + 82562 =

30000 + 1000 + 300 + 90 + 7
+ 80000 + 2000 + 500 + 60 + 2
110000 3000 800 150 9 = 113959

```
 3 1 3 9 7
+ 8 2 5 6 2
   1
 1 1 3 9 5 9
```

THINK

How can you tell where a carry will be needed? Spot two questions where a 100 000 will be made.

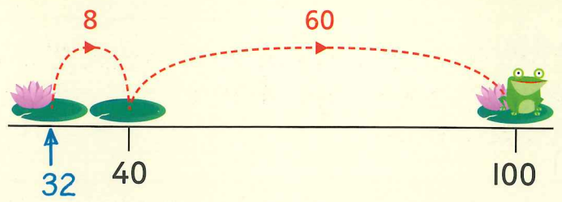
1. 46563 + 26574
2. 43728 + 38462
3. 56846 + 39385
4. 63742 + 17469
5. 72843 + 63979
6. 81778 + 38751
7. 59815 + 44189
8. 82363 + 56638
9. 75435 + 7543 + 9246
10. 11062 + 9437 + 9384
11. 23686 + 7735 + 6680
12. 98547 + 9785 + 4859

I am confident with solving additions using the column method.

Addition of decimals and whole numbers

Complete these additions. Use the inverse operation to help you.

1. $32 + \square = 100$

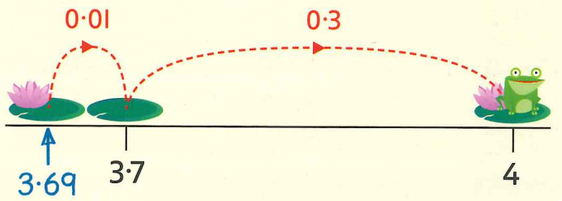


$= \square$

2. $69 + \square = 100$
3. $\square + 23 = 100$
4. $56 + \square = 100$
5. $\square + 39 = 100$

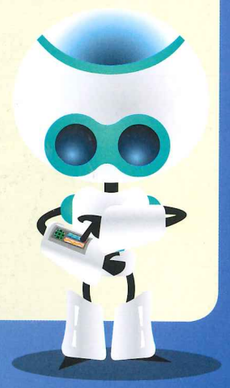
Complete these decimal additions.

$3{\cdot}69 + 0{\cdot}31 = 4$



$= 0{\cdot}31$

6. $8{\cdot}42 + \square = 9$
7. $5{\cdot}81 + \square = 6$
8. $3{\cdot}37 + \square = 4$
9. $6{\cdot}29 + \square = 7$
10. $4{\cdot}14 + \square = 5$
11. $7{\cdot}76 + \square = 8$



THINK Two 1-place decimal numbers add to make 2. If none of the digits in the two numbers are the same, what could the numbers be?

I am confident with solving decimal additions using mental strategies.

Answer these word problems.

1. Calculate the perimeter of a triangle with sides of 2·3 cm, 1·5 cm and 3·7 cm.
2. A fork-lift truck picks up two crates. One weighs 4·63 kg and the other weighs 4·99 kg. What is the total mass of the two crates?
3. Look at this table of surfing scores. Add the scores and see which surfer won.

	Surf 1	Surf 2	Total
Surfer 1	8·04	6·1	
Surfer 2	6·47	3·02	
Surfer 3	7·21	8·51	
Surfer 4	3·99	4·76	
Surfer 5	5·6	6·07	

THINK Two 2-place decimal numbers add to make 2. If none of the digits in the two numbers are the same, what could the numbers be?

I am confident with solving decimal additions using mental strategies.

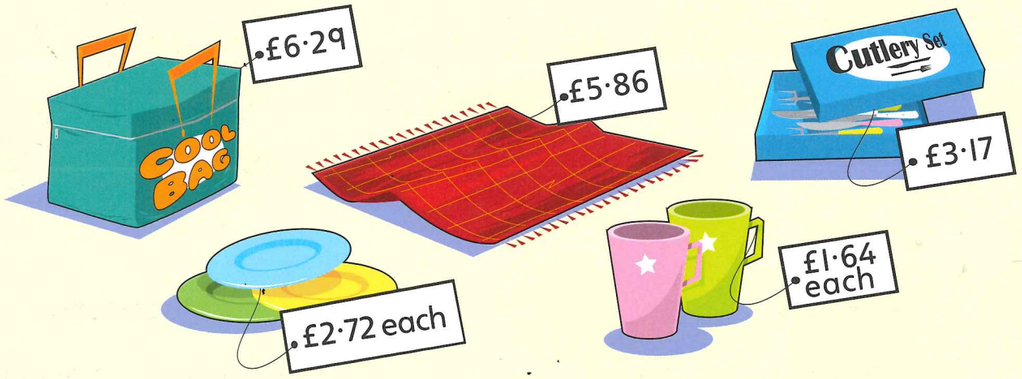
Use column addition to solve these additions.

$$\begin{array}{r} 5{\cdot}48 \\ +\ 2{\cdot}17 \\ \hline 7{\cdot}65 \\ {\scriptstyle 1\ 1} \end{array}$$

Answer these additions.

1. $3{\cdot}52 + 9{\cdot}16$
2. $8{\cdot}73 + 1{\cdot}41$
3. $4{\cdot}27 + 1{\cdot}36$
4. $3{\cdot}62 + 4{\cdot}84$
5. $6{\cdot}33 + 7{\cdot}45$
6. $5{\cdot}68 + 5{\cdot}15$
7. $7{\cdot}26 + 8{\cdot}91$
8. $3{\cdot}68 + 2{\cdot}94$

Look at the items. Find the total cost for each question.



9. a cool bag and cutlery set
10. a rug and one plate
11. a mug and a cool bag
12. two mugs

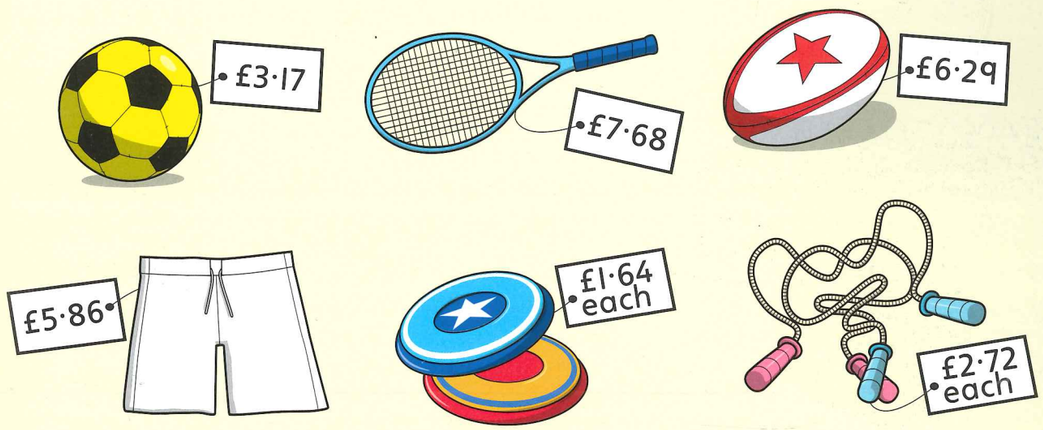
THINK Write two numbers that add to make £20 where the pence end in 3 and 7.

I am confident with solving decimal additions using the column method.

Answer these additions.

1. $3{\cdot}25 + 1{\cdot}19 + 2{\cdot}43$
2. $7{\cdot}61 + 1{\cdot}92 + 1{\cdot}35$
3. $5{\cdot}26 + 4{\cdot}07 + 4{\cdot}63$
4. $8{\cdot}63 + 6{\cdot}85 + 4{\cdot}71$
5. $4{\cdot}78 + 2{\cdot}47 + 1{\cdot}79$
6. $6{\cdot}76 + 7{\cdot}89 + 6{\cdot}82$

Look at the items. Find the total cost for each question.



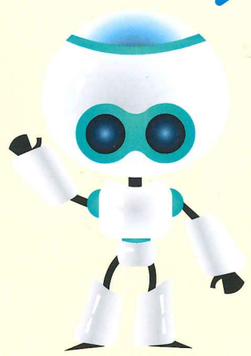
7. a football and shorts
8. a skipping rope and tennis racket
9. a rugby ball and shorts
10. a skipping rope, a flying disc and shorts

THINK Write two numbers that add to make £20 where no digit number is the same in either of the two numbers.

I am confident with solving decimal additions using the column method.

Add these decimals mentally.

1. 3·5 + 2·7 = ☐
2. 10·24 + 4·1 = ☐
3. 5·32 + 1·84 = ☐
4. 5·22 + 1·45 = ☐
5. 5·71 + 8·83 = ☐
6. 8·52 + 9·4 = ☐



Solve these additions using a written method.

7. 25·48 + 16·91 = ☐
8. 29·13 + 17·68 = ☐
9. 53·31 + 27·59 = ☐
10. 49·38 + 32·07 = ☐

THINK

Two amounts of money add to give £10.
One is less than £5 and one is more.
In both, the pence are multiples of 4p.
What could the two amounts be?

I am confident with solving decimal additions using mental and column methods.

Solve these additions using mental and column methods.

1. 3·71 + 8·29 = ☐
2. 14·05 + 7·3 = ☐
3. 63·77 + 24·86 = ☐
4. 54·2 + 6·9 = ☐
5. 12·99 + 5·4 = ☐
6. 34·71 + 18·47 = ☐

Solve these additions. Decide which method to use for each question.

7. 3·69 + 6·2 = ☐
8. 66·3 + 24·85 = ☐
9. 3·99 + 7·3 = ☐
10. 58·25 + 19·78 = ☐
11. 22·6 + 31·16 = ☐
12. 7·45 + 6·55 = ☐

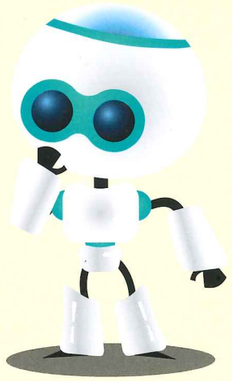
THINK

A mystery number is added to a near multiple of £20 to give £46·64. Give two suggestions as to what the mystery number could be.

I am confident with solving decimal additions using the mental and column methods.

Solve these additions using mental and column methods.

1. $23{\cdot}81 + 4{\cdot}65 =$ ☐
2. $19{\cdot}07 + 3{\cdot}2 =$ ☐
3. $47{\cdot}85 + 95 =$ ☐
4. $16{\cdot}8 + 2{\cdot}99 =$ ☐
5. $48{\cdot}44 + 3{\cdot}87 =$ ☐
6. $5{\cdot}04 + 0{\cdot}73 =$ ☐
7. $73{\cdot}36 + 1{\cdot}64 =$ ☐
8. $4{\cdot}82 + 1{\cdot}28 =$ ☐
9. $13{\cdot}99 + 2{\cdot}7 =$ ☐
10. $63{\cdot}72 + 4{\cdot}57 =$ ☐
11. $53{\cdot}01 + 5{\cdot}81 =$ ☐
12. $77{\cdot}74 + 6{\cdot}69 =$ ☐



THINK

Two amounts of money add to give £45.
In one amount, the number of pounds is the number of pounds in the other amount reversed. In both amounts, the pence are multiples of 4p. What could the amounts be?

I am confident with solving decimal additions using the mental and column methods.

Missing number problems

Find the missing value for each calculation.

1. $a + 64 = 92$
2. $42 - b = 39$
3. $6\frac{1}{2} - c = 5$
4. $64 \div d = 16$
5. $1\frac{1}{2} \times e = 6$
6. $3 \times f + 1 = 31$
7. $45 \times g = 180$
8. $2 \times h = 25 + h$
9. $i \div 8 = 12$
10. $100 - j = j - 40$

Find out what number each letter represents.

THINK

$2 \times b + a = 14$

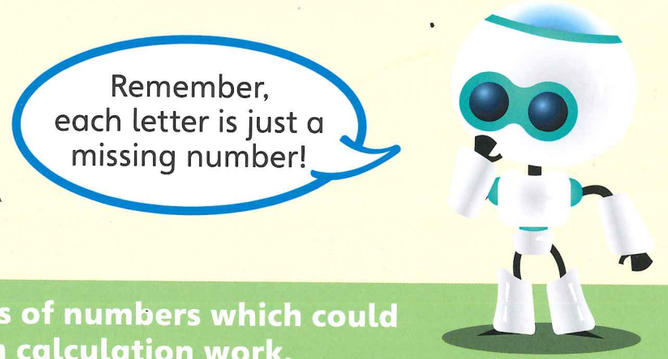
$2 \times a + b = 13$

Find out what a and b are.

I am confident with solving missing number problems.

Find the missing value for each calculation.

1. $20 - a = 17$ $a =$ ☐
2. $3 \times b = 15$ $b =$ ☐
3. $y - 10 = 25$ $y =$ ☐
4. $x + 6 = 14$ $x =$ ☐
5. $4 \times c + 1 = 41$ $c =$ ☐
6. $25 \div a = 5$ $a =$ ☐
7. $x + 20 = 36$ $x =$ ☐
8. $7 \times c = 21$ $c =$ ☐
9. $9 + b + 2 = 20$ $b =$ ☐
10. $20 - y = 5$ $y =$ ☐



Write pairs of numbers which could make each calculation work.

11. $45 + a + b = 55$
12. $13 - c - d = 6$
13. $m + 7 + n = 15$
14. $3 \times g \times h = 30$

THINK

Write your own equation with an unknown value in it. Work out the answer and test it on a partner.

I am confident with solving missing number problems.

On your own, or with a partner, solve these problems.

$a + 45 + b = 54$

$b - a = 3$

Think about what the numbers could be for the first equation in each pair. Use the clues in the second equation to find what the numbers are.

1. $c + 25 + d = 35$ $c - d = 2$ $c =$ ☐ $d =$ ☐
2. $a \times b \times 2 = 24$ $a - b = 1$ $a =$ ☐ $b =$ ☐
3. $34 - x - y = 27$ $x - y = 5$ $x =$ ☐ $y =$ ☐
4. $45 + g + h = 57$ $g \times h = 11$ $g =$ ☐ $h =$ ☐
5. $c \times d \times 3 = 60$ $d - c = 8$ $c =$ ☐ $d =$ ☐
6. $11 - m - n = 6$ $m \times n = 6$ $m =$ ☐ $n =$ ☐
7. $36 \div x = 3y$ $x + y = 8$ $x =$ ☐ $y =$ ☐

THINK

If $c + d + 5 = c \times d$ what could the numbers be?

I am confident with solving missing number problems.