Writing decimals as fractions

Without a calculator write these decimals as fractions:

0.333333333333...

0.2

0.04

0.25

0.5

0.75

Writing decimals as fractions

Without a calculator write these decimals as fractions:

0.333333333333... $= \frac{1}{3}$

0.2 $= \frac{20}{100} = \frac{2}{10} = \frac{1}{5}$

0.04 $= \frac{4}{100} = \frac{1}{25}$

0.5 $= \frac{5}{10} = \frac{1}{2}$

0.75 $= \frac{3}{4}$

0.25= 1/4

Squares, square roots and cubes

work out:

13^2

3^2

1^3

$\sqrt{400}$

2^3

$\sqrt{16}$

$\sqrt{49}$

Squares, square roots and cubes

work out:

$13^2 = 169$

$3^2 = 9$

$\sqrt{400} = 20$

$1^3 = 1$

$2^3 = 8$

$\sqrt{16} = 4$

$\sqrt{49} = 7$

Use of calculator

$\frac{4+2}{1+1} = 4+2 \div 1+1 = 7$ ✗

$\frac{4+2}{1+1} = \frac{6}{2} = 3$ ✓

$(4+2) \div (1+1) = 3$

Remember to use brackets!

Try these:

7+ 8
1+2

7. 3+ 8.09
1. 02+2.09

2.7^2+ 8. 7
1.3^3+2.7

7.8+ $\sqrt{}$8
1- 2 x 3

Use of calculator

Remember to use brackets!

Try these:

$\frac{7+8}{1+2} = 5$

$\frac{7.3+8.09}{1.02+2.09} = 4.9485$

$\frac{2.7^2+8.7}{1.3^3+2.7} = 3.642369$

$\frac{7.8+\sqrt{8}}{1-2 \times 3} = 2.95234$

The nth term of a sequence

Write in next 2 terms of the sequence and the 10th term and the 100th.

1. 3,6,9,..... 10th term= nth term =

2. 4,8,12, 16.... 10th term= nth term =

3. 5, 9, 13, 17..... 10th term= nth term =

4. 3, 5, 7, 9,.... 10th term= nth term =

5. 9, 19, 29, 39, 49... 10th term= nth term =

The nth term of a sequence

Write in next 2 terms of the sequence and the 10th term and the 100th.

1. 3,6,9, 12, 15

10th term= 30 nth term = 3n

2. 4,8,12, 16, 20, 24 10th term= 40 nth term = 4n

3. 5, 9, 13, 17, 21, 25 10th term= 41 nth term = 4n+1

10th term= 21 nth term = 2n+1

4. 3, 5, 7, 9, 11, 13

10th term= 99 nth term = 10n-1

5. 9, 19, 29, 39, 49, 59,69

Solving Equations

$2x = 12$

$x+7 = 10$

$3x - 1 = 11$

$2x + 1 = x + 5$

$4(x - 2) = 16$

$x^2 = 25$

$10 - 2x = 2$

$6x + 4 = 2x + 6$

$3x + 7 = 4$

Solving Equations

2x = 12
x = 6

x+7 = 10
x= 10 -7
x=3

3x - 1 = 11
3x = 12
x = 4

2x + 1 = x + 5
(-x from both sides)
x + 1 = 5
x = 4

4(x - 2) = 16
4x - 8 = 16
4x = 24
x = 6

x^2 = 25
x = 5

10 - 2x = 2
2x = 8
x= 4

6x + 4 = 2x + 6
(-2x from both sides)
4x + 4 = 6
4x = 2
x= 1/2

3x + 7 = 4
3x = -3
x = -1

Multiply out the brackets:

$2(x + 3)$

$4\ (x - 5)$

$x\ (3x + 1)$

$2x\ (3x - 5)$

$3\ (\ 2x + 4) + 2\ (\ x - 1)$

$5\ (\ x - 2) + 3(\ x - 6)$

$4(3x + 1) + 2(5x - 3)$

Multiply out the brackets:

$2(x + 3) = 2x + 6$

$4(x - 5) = 4x - 20$

$x(3x + 1) = 3x^2 + x$

$2x(3x - 5) = 6x^2 - 10x$

$3(2x + 4) + 2(x - 1)$

$= 6x + 12 + 2x - 2$

$= 8x + 10$

$5(x - 2) + 3(x - 6)$

$5x - 10 + 3x - 18$

$= 8x - 28$

$4(3x + 1) + 2(5x - 3)$

$= 12x + 4 + 10x - 6$

$= 22x - 2$

Factorising

$3x + 6 = 3(x+ 2)$

$2x - 6 =$

$4x + 12 =$

$8x + 12 =$

$ab + ac =$

$x^2 + xy =$

$3x^2 - 9 x=$

Factorising

$3x + 6 = 3(x+ 2)$

$2x - 6 =2 (x-3)$

$4x + 12 = 4(x +3)$

$8x + 12 = 4(2x + 3)$

$ab + ac = a(b+c)$

$x^2 + xy =x(x + y)$

$3x^2 - 9x =3 x (x -3)$