Intro Screen

April 2008

IGCSE Maths

Briteschool

What will we do today ?

Rearranging Equations
(Changing the subject of a formula 1)

2 hour session

Answers provided for ~1 hour's work

Changing the subject of a formula 1 Questions

Changing the subject

If

$$x = y + 4$$

what does

$$y = ?$$

If

$$x = y - 10$$

what does

$$y = ?$$

Changing the subject of a formula 2

Changing the subject

If

$x = 2y$

what does

$y = ?$

If

$x = y/5$

what does

$y = ?$

If

$x = 3y/5$

what does

$y = ?$

Changing the subject of a formula 1 Worked ANSWERS

Changing the subject

If

$$x = y + 4 \qquad y + 4 = x$$

what does

$y = ?$ $\quad$ $y = x - 4$

If

$$x = y - 10$$

what does

$y = ?$ $\quad$ $y = x + 10$

Changing the subject of a formula 2

Changing the subject

If

$x = 2y$

what does

$y = ?$

$y = x/2$

If

$x = y/5$

what does

$y = ?$

$y = 5x$

If

$x = 3y/5$

what does

$y = ?$

$y = 5x/3$

Changing the subject of a formula p3

Changing the subject

If $x = 10y$

what does $y = ?$

If $x = y/515$

what does $y = ?$

If $x = y/43$

what does $y = ?$

If $x = 73y/25$

what does $y = ?$

Changing the subject of a formula p3 ANSWERS

Changing the subject

If

$x = 10y$

what does

$y = ?$

$y = x/10$

If

$x = y/515$

what does

$y = ?$

$y = x*515 = 515x$

If

$x = y/43$

what does

$y = ?$

$y = 43x$

If

$x = 73y/25$

what does

$y = ?$

$y = 25x/73$

Exercise 1 - changing the subject

Exercise:

Make x the subject of the equation in each of the following:

1) $a = x - 4$

2) $b = 7x$

3) $c = x - 6$

4) $d = x/13$

5) $e = 2x/3$

6) $f = 10 - x$

Exercise 1 - changing the subject ANSWERS

Exercise:

Make x the subject of the equation in each of the following:

1) $a = x - 4$ $x = a + 4$

2) $b = 7x$ $x = b/7$

3) $c = x - 6$ $x = c + 6$

4) $d = x/13$ $x = 13d$

5) $e = 2x/3$ $x = 3e/2$ (or $x = 1.5e$)

6) $f = 10 - x$ $x = 10 - f$

Changing the subject of a formula

Changing the subject

If

$$x = 2y + 1$$

what does

$$y = ?$$

Changing the subject of a formula

Changing the subject

If

$$a = 2b - 6$$

what does

$$b = ?$$

Changing the subject of a formula

Changing the subject

If

$$3a = 2b - 6$$

what does

$$b = ?$$

Changing the subject of a formula

Changing the subject

If

$$a = b^2$$

what does

$$b = ?$$

Changing the subject of a formula

Changing the subject

If

$$2a = b^3$$

what does

$$b = ?$$

Exercise - changing the subject

Exercise:

Make x the subject of the equation in each of the following:

1) $a = x - 24$

2) $b = 17x$

3) $c = 12x - 6$

4) $d = 14 - x$

5) $e = 6 - 12x$

6) $f = x^2$

7) $g = \sqrt{x}$