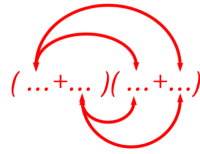# Lots of ALGEBRA 5 PLUS ANSWERS

Expand and simplify

$(3m+5)(m+2)$
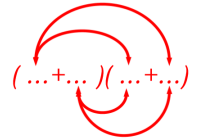
$(...+...)(...+...)$

$3m^2 +6m + 5m +10$

$3m^2 + 11m +10$

Expand and simplify

$(x-7)^2$

$(...+...)(...+...)$

$(x-7)(x-7)$

$x^2 -7x -7x +49$

$x^2 -14x +49$

Find the area of this rectangle

$(m+5)$

$(m-2)$

$(...+...)(...+...)$
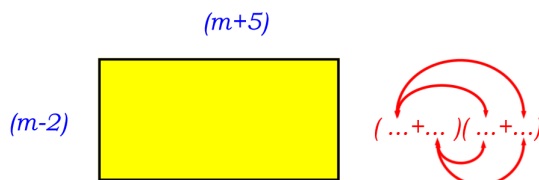
Area $= (m+5)(m-2)$

$m^2 -2m + 5m -10$

$m^2 +3x -10$

Factorise

$x^2+7x+10$

add to   multiply to

$= (x+5)(x+2)$

Factorise

x^2+6x-7

add to   multiply to

$= (x+7)(x-1)$

Factorise

$x^2-2x-15$

add to   multiply to

$= (x - 5)(x +3)$

Substitute the values

$m = 5$ and $e = -7$ into

$A = 4m + e^2$

$A = 4(5) + (-7)^2$

$A = 20 + 49$

$A = 69$

Substitute the values

$m = -2.5$ and $e = -4$ into

$C = 4(3m - e)$

$C = 4(-7.5 - -4)$

$C = 4(-3.5)$

$C = -14$

Substitute the values

m = -3 and e = -9 into

$$E = m^3 + 5e$$

$$E = (-3)^3 + 5(-9)$$

$$E = -27 - 45$$

$$E = -72$$

Substitute the values

m = 5 and e = -4 into

$$H = \frac{2m^2}{e+1}$$

$$H = \frac{2(5)^2}{-4+1}$$

$$H = \frac{50}{-3}$$

$$H = -16\,^2/_3$$

Substitute the values

m = -5 and e = -4 into

$$J = 2(m+e)^2$$

$$J = 2(-5+-4)^2$$

$$J = 2(-9)^2$$
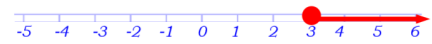
$$J = 162$$

Solve this inequality

$$n+3 \geq 6$$

and show this on this numberline

$$n \geq 3$$

empty circle means
$n > 1$

filled in circle means
$n \geq 1$

Solve this inequality

$$2n > 8$$

integer means whole number

and show the integer solutions on this numberline

$$n > 4$$

Solve this inequality

$$2n+3 > 11$$

and show this on this numberline

$$2n > 8$$

$$n > 4$$

empty circle means
$n > 1$

filled in circle means
$n \geq 1$

Solve this inequality

$$-6 < 3n \leq 12$$

and show this on this numberline

$\div3$ $\div3$ $\div3$ each term

$$-2 < n \leq 4$$

empty circle means
$-2 < n < 5$

filled in circle means
$-2 \leq n \leq 5$

Solve this inequality

$$-7 \leq 4n+1 \leq 13$$

and show this on this numberline

-1 -1 -1 each term

$$-8 \leq 4n \leq 12$$

$$-2 \leq n \leq 3$$

empty circle means
$-2 < n < 5$

filled in circle means
$-2 \leq n \leq 5$