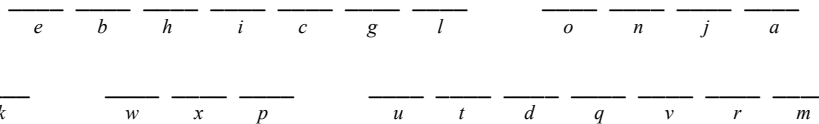


Why are angles at a point so hot?



Simplify

- a) $3x + 4x$
- b) $11x - x$
- c) $4x \times 2x^2$
- d) $3x \times 3x$
- e) $2x^3 + 7x^3$
- f) $3x \times 3$
- g) $10x^2 - 2x^2$
- h) $2x \times 4$

Expand

- i) $5(x + 2)$
- j) $3(3 + x)$
- k) $x(x + 4)$
- l) $5(x - 2)$
- m) $5(x + y)$
- n) $x(x - 3)$
- o) $x(x + y)$
- p) $3(x + 2)$

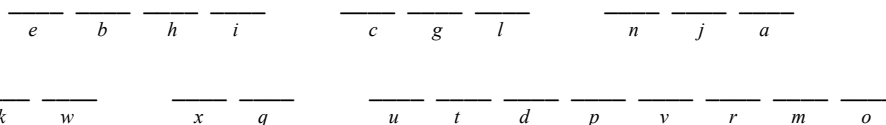
Factorise

- q) $3x + 9$
- r) $6x + 6$
- s) $6 + 2x$
- t) $6 + 3x$
- u) $x^2 - 4x$
- v) $y^2 + 4y$
- w) $y^2 + xy$
- x) $x^2 + 4x$

Answers

$7x \rightarrow Y$	$9x \rightarrow A$	$5x + 10 \rightarrow A$	$9 + 3x \rightarrow E$	$x(x - 4) \rightarrow D$	$6(x + 1) \rightarrow E$
$8x \rightarrow C$	$9x^2 \rightarrow G$	$5x - 10 \rightarrow E$	$x^2 + 4x \rightarrow E$	$x(x + 4) \rightarrow 6$	$3(x + 3) \rightarrow R$
$8x^2 \rightarrow S$	$9x^3 \rightarrow B$	$x^2 + xy \rightarrow T$	$x^2 - 3x \rightarrow H$	$y(y + 4) \rightarrow E$	$2(3 + x) \rightarrow R$
$8x^3 \rightarrow U$	$10x \rightarrow E$	$5x + 5y \rightarrow S$	$3x + 6 \rightarrow 0$	$y(y + x) \rightarrow 3$	$3(2 + x) \rightarrow E$

Why are maths books so sad?



Calculate if $x = 5$ and $y = 2$

- a) xy
- b) $3x$
- c) $4 + x$
- d) $2(x + y)$
- e) $5(x - 1)$
- f) $x - 2y$
- g) x^2
- h) $2x - y$

Give an expression for:

- i) five more than a number
- j) a number times itself
- k) five times a number
- l) five less than a number
- m) one more than five times a number
- n) two different numbers multiplied
- o) three times six more than a number
- p) three times a number then six is added

Solve

- q) $3x = 9$
- r) $6 + x = 3$
- s) $18 = 5x$
- t) $11 = 15 - x$
- u) $4x = -20$
- v) $-3x = 12$
- w) $4x + 3 = 11$
- x) $12 = 8 + 4x$

Answers

$1 \rightarrow F$	$14 \rightarrow O$	$x - 5 \rightarrow E$	$xy \rightarrow T$	$x = 3.6 \rightarrow U$	$x = 4 \rightarrow R$
$8 \rightarrow E$	$15 \rightarrow H$	$5a \rightarrow L$	$x^2 \rightarrow O$	$x = 2 \rightarrow L$	$x = -3 \rightarrow E$
$9 \rightarrow A$	$20 \rightarrow T$	$5x + 1 \rightarrow M$	$3x + 6 \rightarrow B$	$x = -5 \rightarrow P$	$x = 1 \rightarrow O$
$10 \rightarrow O$	$25 \rightarrow R$	$n + 5 \rightarrow Y$	$3(x + 6) \rightarrow S$	$x = -4 \rightarrow L$	$x = 3 \rightarrow F$