Algebra basics
Higher worksheet

1) Simplify $4p + p$

2) Simplify $4p \times p$

3) Simplify $3m + 6 + 8m - 2$

4) Simplify $3m + 6 - 8m - 2$

5) Simplify $-5a \times 2m \times 3m$

6) Simplify $7x - 2x^2 - 5xy - 8x + xy + x$

7) Given that $t = 3$ and $u = 5$, find the value of $2t + 3u$

8) Given that $t = 3$ and $u = 5$, find the value of $2tu$

9) Given that $t = 3$ and $u = 5$, find the value of t^2u

10) Given that $t = 3$ and $u = 5$, find the value of tu^2

11) Given that $t = 3$ and $u = 5$, find the value of $(tu)^2$

12) Expand $2(x - 7)$

13) Expand $x(x - 7)$

14) Expand $3x(2x - 7)$

Algebra basics
Higher worksheet

15) Expand $(x + 3)(x - 7)$

16) Expand $(x + 3)(x - 3)$

17) Expand $(2x - 5)(x - 1)$

18) Expand $(x + 3)(2 - x)$

19) Expand $(a + 11)(b - 2c)$

20) Factorise $x^2 - 12x + 11$

21) Factorise $x^2 + 5x - 14$

22) Factorise $2x^2 - 23x - 12$

23) Factorise $6x^2 - 21x$

24) Factorise $5x^2 + 4x - 12$

25) Factorise $4x^2 - 24x + 11$

Algebra basics
Higher worksheet

1) Simplify $4p + p$

   $5p$

2) Simplify $4p \times p$

   $4p^2$

3) Simplify $3m + 6 + 8m - 2$

   $11m + 4$ or $4 + 11m$

4) Simplify $3m + 6 - 8m - 2$

   $-5m + 4$ or $4 - 5m$

5) Simplify $-5a \times 2m \times 3m$

   $-30am^2$ or $-30m^2a$

6) Simplify $7x - 2x^2 - 5xy - 8x + xy + x$

   $-2x^2 - 4xy$ or $-4xy - 2x^2$

7) Given that $t = 3$ and $u = 5$, find the value of $2t + 3u$

   21

8) Given that $t = 3$ and $u = 5$, find the value of $2tu$

   30

9) Given that $t = 3$ and $u = 5$, find the value of t^2u

   45

10) Given that $t = 3$ and $u = 5$, find the value of tu^2

    75

11) Given that $t = 3$ and $u = 5$, find the value of $(tu)^2$

    225

12) Expand $2(x - 7)$

    $2x - 14$

13) Expand $x(x - 7)$

    $x^2 - 7x$

14) Expand $3x(2x - 7)$

    $6x^2 - 21x$

Algebra basics
Higher worksheet

15) Expand $(x + 3)(x - 7)$

$x^2 - 4x - 21$

16) Expand $(x + 3)(x - 3)$

$x^2 - 9$

17) Expand $(2x - 5)(x - 1)$

$2x^2 - 7x + 5$

18) Expand $(x + 3)(2 - x)$

$-x^2 - x + 6$

19) Expand $(a + 11)(b - 2c)$

$ab - 2ac + 11b - 22c$

20) Factorise $x^2 - 12x + 11$

$(x - 11)(x - 1)$

21) Factorise $x^2 + 5x - 14$

$(x - 2)(x + 7)$

22) Factorise $2x^2 - 23x - 12$

$(x - 12)(2x + 1)$

23) Factorise $6x^2 - 21x$

$3x(2x - 7)$

24) Factorise $5x^2 + 4x - 12$

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

25) Factorise $4x^2 - 24x + 11$

$(2x - 11)(2x - 1)$