Algebra basics
Foundation worksheet

1) Simplify $p + p + p + p$

2) Simplify $4p + p$

3) Simplify $4p \times p$

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

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

6) Simplify $-3b \times b \times 4$

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

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

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

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

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

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

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

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

15) Expand $2(x - 7)$

16) Expand $x(x - 7)$

17) Expand $3x(x - 7)$

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

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

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

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

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

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

24) Factorise $x^2 + 14x + 48$

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

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

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

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1) Simplify $p + p + p + p$

   $4p$

2) Simplify $4p + p$

   $5p$

3) Simplify $4p \times p$

   $4p^2$

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

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

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

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

6) Simplify $-3b \times b \times 4$

   $-12b^2$

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

   $-30am^2$

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

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

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

   6

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

    21

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

    30

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

    45

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

    75

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

    225

15) Expand $2(x - 7)$

    $2x - 14$

16) Expand $x(x - 7)$

    $x^2 - 7x$

17) Expand $3x(x - 7)$

    $3x^2 - 21x$

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

    $6x^2 - 21x$

Algebra basics
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19) Expand $(x + 3)(x - 7)$

$x^2 - 4x - 21$

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

$x^2 - 9$

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

$2x^2 - 7x + 5$

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

$-x^2 - x + 6$

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

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

24) Factorise $x^2 + 14x + 48$

$(x + 6)(x + 8)$

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

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

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

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

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

$3x(2x - 7)$