



Simplifying Algebraic Expressions

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1) June 2010 V3

12 Expand and simplify $2(x - 3)^2 - (2x - 3)^2$.

Answer [3]

2) November 2010 V1

3 Expand the brackets and simplify.

$$\frac{1}{2}(6x - 2) - 3(x - 1)$$

Answer [2]

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3) June 2011 V3

1 Factorise completely.

$$2xy - 4yz$$

Answer [2]

4) November 2011 V2

2 Factorise completely

$$ax + bx + ay + by.$$

Answer [2]

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11 Factorise completely.

$$p^2x - 4q^2x$$

Answer [3]

6) June 2012 V1

3 Factorise completely.

$$15p^2 + 24pt$$

Answer [2]

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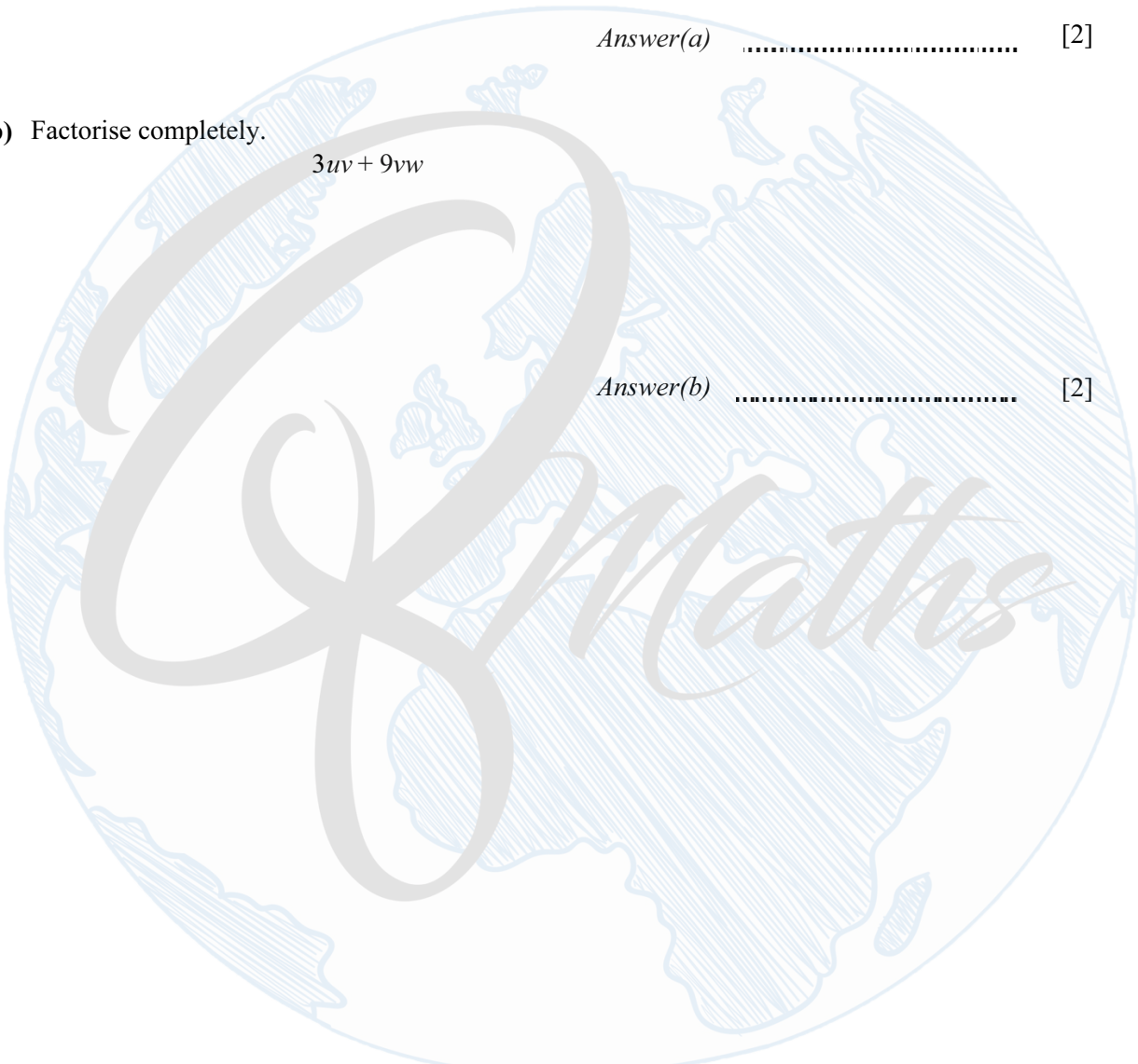
13 (a) Find the value of $7p - 3q$ when $p = 8$ and $q = -5$.

Answer(a) [2]

(b) Factorise completely.

$$3uv + 9vw$$

Answer(b) [2]



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5 Simplify the expression.

$$(a^{\frac{1}{2}} - b^{\frac{1}{2}})(a^{\frac{1}{2}} + b^{\frac{1}{2}})$$

Answer [2]

4 Expand the brackets.

$$y(3 - y^3)$$

Answer [2]

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10) June 2013 V1

6 Factorise completely.

$$12xy - 3x^2$$

Answer [2]

11) June 2013 V1

10 Factorise completely.

$$ap + bp - 2a - 2b$$

Answer [2]

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2 Factorise completely.

$$kp + 3k + mp + 3m$$

Answer [2]

13) November 2013 V1

17 Factorise completely.

(a) $a + b + at + bt$

Answer(a) [2]

(b) $x^2 - 2x - 24$

Answer(b) [2]

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9 (a) Expand and simplify $(a+b)^2$.

Answer(a) [2]

(b) Find the value of $a^2 + b^2$ when $a + b = 6$ and $ab = 7$.

Answer(b) [1]

15) June 2014 V1

10 Factorise completely.

(a) $ax + ay + bx + by$

Answer(a) [2]

(b) $3(x-1)^2 + (x-1)$

Answer(b) [2]

16) June 2014 V2

16 Factorise completely.

(a) $4p^2q - 6pq^2$

Answer(a) [2]

(b) $u + 4t + ux + 4tx$

Answer(b) [2]

17) June 2014 V3

4 Factorise completely.

$15a^3 - 5ab$

Answer [2]

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18) June 2015 V1

4 Expand and simplify.

$$x(2x + 3) + 5(x - 7)$$

Answer [2]

19) June 2015 V1

20 Factorise completely.

(a) $yp + yt + 2xp + 2xt$

Answer(a) [2]

(b) $7(h + k)^2 - 21(h + k)$

Answer(b) [2]

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20) June 2015 V3

2 Factorise completely.

$$9x^2 - 6x$$

Answer [2]

21) June 2015 V3

5 Factorise $2x^2 - 5x - 3$.

Answer [2]

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22) November 2015 V1

9 Factorise completely.

(a) $ax + ay + 3cx + 3cy$

Answer(a) [2]

(b) $3a^2 - 12b^2$

Answer(b) [3]

23) November 2015 V2

15 Factorise

(a) $9w^2 - 100$,

Answer(a) [1]

(b) $mp + np - 6mq - 6nq$

Answer(b) [2]

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24) November 2015 V3

6 Simplify.

$$1 - 2u + u + 4$$

Answer [2]

25) November 2015 V3

7 Factorise completely.

$$2x - 4x^2$$

Answer [2]

26) March 2015 V2

4 Factorise $14p^2 + 21pq$.

Answer [2]

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2 Factorise $2x - 4xy$.

..... [2]



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24 Factorise completely.

(a) $2a+4+ap+2p$

..... [2]

(b) $162 - 8t^2$

..... [2]



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29) June 2016 V2

15 $y = x^2 + 7x - 5$ can be written in the form $y = (x + a)^2 + b$

Find the value of a and the value of b .

$a =$

$b =$ [3]

30) November 2016 V1

13 Factorise completely.

(a) $4p^2 - 9$

..... [1]

(b) $2ax - 4bx - ay + 2by$

..... [2]

31) November 2016 V2

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5 Simplify.
 $36y^5 \div 4y^2$

..... [2]

13 Factorise.

(a) $m^3 + m$

..... [1]

(b) $25 - y^2$

..... [1]

(c) $x^2 + 3x - 28$

..... [2]



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