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# National 5 Maths

## Changing the Subject

SQA past paper and specimen paper  
questions and answers by topic

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Change the subject of the formula  $p = \frac{mv^2}{2}$  to  $v$ .

3

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Answer:

$$v = \sqrt{\frac{2p}{m}}$$

National 5 Maths  
SQA 2014 Paper 2  
Question 11

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Change the subject of the formula  $s = ut + \frac{1}{2}at^2$  to  $a$ .

3

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Answer:

$$a = \frac{2(s - ut)}{t^2}$$

National 5 Maths  
SQA 2016 Paper 2  
Question 12

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Change the subject of the formula  $L = \sqrt{4kt - p}$  to  $k$ .

3

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Answer:

$$k = \frac{L^2 + p}{4t}$$

National 5 Maths  
SQA 2017 Paper 1  
Question 10

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Change the subject of the formula  $F = \frac{t^2 + 4b}{c}$  to  $b$ .

3

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Answer:

$$b = \frac{Fc - t^2}{4}$$

**National 5 Maths**  
**SQA 2018 Paper 1**  
**Question 14**

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Change the subject of the formula  $y = g\sqrt{x} + h$  to  $x$ .

**3**

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Answer:

$$x = \left( \frac{y-h}{g} \right)^2$$

The area of a trapezium is given by the formula

$$A = \frac{1}{2}h(x + y).$$

Make  $x$  the subject of the formula.

3

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Answer:

$$x = \frac{2A}{h} - y$$

or

$$x = \frac{2A - hy}{h}$$

National 5 Maths  
SQA 2021 Paper 2  
Question 10

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Change the subject of the formula  $d = \sqrt{\frac{3h}{2}}$  to  $h$ .

3

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Answer:

$$h = \frac{2d^2}{3}$$



National 5 Maths  
SQA 2022 Paper 1  
Question 7

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Change the subject of the formula  $D = \frac{B+4}{C^2}$  to  $B$ .

2

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Answer:

$$B = C^2D - 4 \text{ or equivalent}$$

National 5 Maths  
SQA 2023 Paper 2  
Question 7

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Change the subject of the formula  $P = \frac{1}{3}mn - r$  to  $m$ .

3

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Answer:

$$m = \frac{3(P+r)}{n} \text{ or equivalent}$$