

5.4 Answers

GCSE Mathematics Algebra, Rearranging Formulae

5.4.1 Solution to Introductory Example

Method 1

	$a - 4mx - 5 = 8k$	
$\times (-1)$		$\times (-1)$
	$-a + 4mx + 5 = -8k$	
$+a$		$+a$
	$4mx + 5 = a - 8k$	
-5		-5
	$4mx = a - 8k - 5$	
$\div 4m$		$\div 4m$
	$x = \frac{a - 8k - 5}{4m}$	

Method 2

	$a - 4mx - 5 = 8k$	
$+4mx$		$+4mx$
	$a - 5 = 4mx + 8k$	
$\leftrightarrow$		$\leftrightarrow$
	$4mx + 8k = a - 5$	
$-8k$		$-8k$
	$4mx = a - 8k - 5$	
$\div 4m$		$\div 4m$
	$x = \frac{a - 8k - 5}{4m}$	

5.4.2 Solutions to 5.2 Exercise

Answer 1

$$x = \frac{y^3 - 17d}{3}$$

Answer 2

$$x = 8w - 5h$$

Answer 3

$$x = \frac{1 + w + z^2}{4}$$

Answer 4

$$x = \frac{3}{p - Ez}$$

Answer 5

$$x = 4m - \frac{12}{k + 4}$$

Answer 6

$$x = \frac{4 + z}{w - v^2}$$

Answer 7

$$x = \frac{15z}{k + 5}$$

Answer 8

$$x = 21k + 6w$$

Answer 9

$$x = \frac{10v - 35w}{p}$$

Answer 10

$$x = \frac{m^2}{7b + w} - \sqrt{p}$$

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Teachers may obtain detailed worked solutions to the exercises by email from MHHShrewsbury@Gmail.com