

Section 1: Equations

Section test

In Questions 1 to 4, solve the equations.

1) $3x + 2 = x - 5$

(a) $x = -7$

(c) $x = -3$

(e) I don't know

(b) $x = -3.5$

(d) $x = -1.5$

2) $1 - x = 5x - 3$

(a) $x = \frac{1}{2}$

(c) $x = 1$

(e) I don't know

(b) $x = \frac{2}{3}$

(d) $x = -\frac{1}{2}$

3) $1 - 2(y + 3) = 5(2 - y)$

(a) $y = 1$

(c) $y = \frac{17}{3}$

(e) I don't know

(b) $y = \frac{15}{7}$

(d) $y = 5$

4) $\frac{a - 2}{3} = \frac{1 - a}{2}$

(a) $a = 1.4$

(c) $a = -1$

(e) I don't know

(b) $a = -7$

(d) $a = 0.2$

5) A football club has played 15 matches so far this season. They score 3 points for a win, 1 point for a draw and 0 points for a loss. They have lost 4 matches, and their points score is 27. How many matches have they won?

(a) 3

(c) 8

(e) I don't know

(b) 4

(d) 11

AQA FM Further algebra 1 section test

6) The solutions of the equation $x^2 + 2x - 5 = 0$ are

- (a) no real solutions
(b) $-1 \pm \sqrt{6}$
(c) $-1 \pm \sqrt{12}$
(d) $-1 \pm \sqrt{24}$
(e) I don't know

7) The solutions of the equation $2x^2 - 11x + 15 = 0$ are

- (a) no real solutions
(b) 1.5 and 5
(c) $\frac{11 \pm \sqrt{241}}{4}$
(d) 2.5 and 3
(e) I don't know

8) The solutions of the equation $3x^2 - 2x + 4 = 0$ are

- (a) no real solutions
(b) 2 and $\frac{2}{3}$
(c) $\frac{1 \pm \sqrt{13}}{3}$
(d) $\frac{1 \pm \sqrt{11}}{3}$
(e) I don't know

9) The solutions of the equation $2x^2 + 5x - 4 = 0$ are

- (a) $\frac{5 \pm \sqrt{57}}{4}$
(b) $\frac{5 \pm \sqrt{7}}{4}$
(c) $\frac{-5 \pm \sqrt{57}}{4}$
(d) $\frac{-5 \pm \sqrt{7}}{4}$
(e) I don't know

10) A rectangle has length $(3x - 1)$ cm and width $(x + 3)$ cm. The area of the rectangle is 65 cm^2 . What is the value of x ?

- (a) 3.61 or -6.28
(b) 3.61
(c) 6.28
(d) -3.61 or 6.28
(e) I don't know