

Solving Equations Exam Practice



- Q1. Solve the equation $2x + 5 = 19$
(2 marks)
- Q2. Solve the equation $4x - 7 = 55$
(2 marks)
- Q3. Solve the equation $2(x + 9) = 40$
(2 marks)
- Q4. Solve the equation $8x - 5 = 5x + 37$
(2 marks)
- Q5. Solve the equation $35 - 4b = 11b + 5$
(2 marks)
- Q6. Solve the equation $4(x - 8) = 6(x + 5)$
(2 marks)
- Q7. Solve the equation $4(2a + 3) = 3(2a + 8)$
(3 marks)
- Q8. Solve the equation $4(x - 8) = 6(x + 5)$
(3 marks)
- Q9. Solve the equation $155 - 4w = 27$
(2 marks)
- Q10. Solve the equation $7x + 10\pi = 5x - 2\pi$, giving your answer in terms of π .
(2 marks)
- Q11. You are given that $146 \times 823 = 120158$. Use this fact to solve the equations:
- (i) $146x = 120158$
(1 mark)
- (ii) $292x = 120158$
(1 mark)
- Q12. Solve the equation for x : $25 - x = 3x + 12 - 5x$
(2 marks)



Q13. Rory is asked to solve the equation, $3x - 6 = x + 11$.

His solution is as follows:

$$\begin{aligned}4x - 6 &= x + 11 \\-6 &= -3x + 11 \\17 &= -3x \\-\frac{17}{3} &= x \\x &= -5.6\end{aligned}$$

(i) Identify the mistakes in his solution

(2 marks)

(ii) Write out a correct solution.

(2 marks)

Fractional Equations

Q14. Solve the equation $8 + \frac{1}{2}x = 22$

(2 marks)

Q15. Solve the equation $\frac{x-9}{5} = 7$

(2 marks)

Q16. Solve the equation $3x + \frac{1}{2}x + 4 = 25$

(2 marks)

Q17. Solve the equation $\frac{12-3x}{2} + 11 = 20$

(3 marks)

Q18. Solve the equation $\frac{y-9}{y} = 13$

(2 marks)

Q19. Solve the equation $\frac{1}{3}x + \frac{1}{2}x - 2 = 13$

(3 marks)