Exam Style Questions

Solving Equations

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser
You may use tracing paper if needed

Guidance

1. Read each question carefully before you begin answering it.
2. Don’t spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

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Video 110
Video 113
1. Solve \( 4g = 12 \)

\[
g = \frac{12}{4} = 3
\]

(1)

2. Solve \( x - 3 = 8 \)

\[
x = 8 + 3 = 11
\]

(1)

3. Solve \( x + 5 = 7 \)

\[
x = 7 - 5 = 2
\]

(1)

4. Solve \( x + 7 = 4 \)

\[
x = 4 - 7 = -3
\]

(1)

5. Solve \[
\frac{x}{4} = 7
\]

\[
x = 7 \times 4 = 28
\]

(1)
6. Solve

\[
\frac{x}{2} = 10
\]

\[
x = \text{...............} \quad (1)
\]

7. Solve

\[2w - 1 = 13\]

\[
w = \text{...............} \quad (2)
\]

8. Solve

\[3y + 4 = 22\]

\[
y = \text{...............} \quad (2)
\]

9. Solve

\[
\frac{c}{2} + 3 = 10
\]

\[
c = \text{...............} \quad (2)
\]
10. Solve \[10y - 3 = 24\]

\[y = \text{..........................} \quad (2)\]

11. Solve \[8w + 20 = 4\]

\[w = \text{..........................} \quad (2)\]

12. Solve \[12 - y = 5\]

\[y = \text{..........................} \quad (1)\]

13. Solve \[18 - 4a = 2\]

\[a = \text{..........................} \quad (2)\]
14. Solve \( 2e - 8 = 14 \)

\[
e = \frac{12}{2} = 6
\]

(2)

15. Solve \( \frac{w + 3}{4} = 6 \)

\[
w = 21
\]

(2)

16. Solve \( 3(y + 4) = 24 \)

\[
w = 4
\]

(2)

17. Solve \( 5(2y + 7) = 20 \)

\[
y = \frac{1}{2}
\]

(2)
18. Solve $7w + 3 = 5w + 9$

$w = \ldots$  

(2)

19. Solve $7y + 6 = 5(y - 2)$

$y = \ldots$  

(3)

20. Solve $4(2x - 5) = 5x + 4$

$x = \ldots$  

(3)

21. Solve $2(2x + 1) = 3(x - 4)$

$x = \ldots$  

(3)
22. Solve \( 5(3c - 2) - 7c = 40 - 2c \)

\[ c = \ldots \] (3)

23. In the grid above, each row adds up to the number to the right.

Find the values of \( w \), \( x \), \( y \) and \( z \).

\[
\begin{array}{cccc}
  w & w & w & w \\
  w & w & x & x \\
  w & x & x & y \\
  w & x & y & z \\
\end{array}
\]

\[
\begin{array}{c}
  20 \\
  24 \\
  25 \\
  30 \\
\end{array}
\]

\( w = \ldots \) (4)

\( x = \ldots \)

\( y = \ldots \)

\( z = \ldots \)