Solving equations
Foundation worksheet

Solve the following equations

1) $x + 6 = -15$

2) $7x = 10$

3) $\dfrac{x}{3} = -20$

4) $6x + 4 = -19$

5) $\dfrac{x}{3} + 5 = -8$

6) $\dfrac{x + 2}{4} = 6$

7) $6x - 2 = 3x - 3$

8) $\dfrac{x+8}{5} = 2x - 2$

9) $(x-1)(x+10) = 0$

10) $x^2 + 6x - 72 = 0$

11) $x^2 - 49 = 0$

12) $2x^2 - x - 45 = 0$

Solving equations
Foundation worksheet

Solve the following equations

1) $x + 6 = -15$

$x = -21$ (subtracting 6 from each side)

2) $7x = 10$

$x = \frac{10}{7}$ (dividing each side by 7)

3) $\frac{x}{3} = -20$

$x = -60$ (multiplying each side by 3)

4) $6x + 4 = -19$

$6x = -23$ (subtracting 4 from each side)

$x = \frac{-23}{6}$ (dividing each side by 6)

5) $\frac{x}{3} + 5 = -8$

$\frac{x}{3} = 13$ (subtracting 5 from each side)

$x = -39$ (multiplying each side by 3)

6) $\frac{x + 2}{4} = 6$

$x + 2 = 24$ (multiplying each side by 4)

$x = 22$ (subtracting 2 from each side)

7) $6x - 2 = 3x - 3$

$3x - 2 = -3$ (subtracting $3x$ from each side)

$3x = -1$ (adding 2 to each side)

$x = \frac{-1}{3}$ (dividing each side by 3)

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8) $\dfrac{x+8}{5} = 2x - 2$

$x + 8 = 5(2x - 2)$ (multiplying each side by 5)

$x + 8 = 10x - 10$ (expanding the right-hand side)

$8 = 9x - 10$ (subtracting x from each side)

$18 = 9x$ (adding 10 to each side)

$x = 2$ (dividing each side by 9)

9) $(x - 1)(x + 10) = 0$

$x = 1, x = -10$

10) $x^2 + 6x - 72 = 0$

$(x + 12)(x - 6) = 0$

$x = -12, x = 6$

11) $x^2 - 49 = 0$

$(x + 7)(x - 7) = 0$

$x = -7, x = 7$

12) $2x^2 - x - 45 = 0$

$(x + 5)(2x - 9)$

$x = -5, x = \dfrac{9}{2}$