Equations

1. Solve

(a) $3(2x - 1) > 4x + 7$

(b) $5 - (2u - 1) = 14 - 4u$

(c) $\frac{1}{3}x - (x - 4) = 2$

(d) $2(p - 4) - \frac{3}{4}p \geq 2$

(e) $4 - \frac{x + 3}{2} = 7$

(f) $\frac{2x + 1}{3} = \frac{4(x - 1)}{5}$

(g) $\frac{x + 2}{5} - 1 = \frac{1}{2}$

(h) $2x + \frac{x - 5}{2} \leq 10$

(i) $\frac{2 + 3x}{4} = 2x - 1$

(j) $\frac{3x - 1}{2} - \frac{4}{3} = x$

2. Solve

(a) $2x^2 = 14x$

(b) $3a^2 = a + 10$

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

(d) $3 = \frac{3m^2 + 12m}{5}$

(e) $-2 = \frac{t(t - 9)}{7}$

(f) $\frac{x + 15}{x} = 2x$

(g) $\frac{11x + 12}{x} = 5x$

(h) $\frac{n^2}{2} = 4n + 10$

3. (a) Solve $3x^2 = 7x + 1$, giving your answers correct to one decimal place.

(b) Solve $\frac{5x(x + 1)}{2} = 1$, giving your answers correct to 2 significant figures.

(c) Solve $\frac{1}{3}a^2 = 4a - 5$, giving your answers correct to 2 decimal places.

(d) Solve $x + 1 = \frac{5 - x}{3x}$, giving your answers correct to 3 significant figures.