1 Algebra

(a) $\frac{x}{z} + 5 = xz$
$x = \frac{5z}{z^2 - 1}$

(b) $\frac{x}{100} = x + 6$
$x = -\frac{200}{33}$

(c) $z(x - z) = x - z$
$x = z$

(d) $x + 10 = 3x$
$x = 5$

(e) $\frac{x}{8} + 1 = x - z$
$x = \frac{8z}{7} + \frac{8}{7}$

(f) $\frac{x}{z} + z = x - 1$
$x = \frac{z(z+1)}{z-1}$

(g) $\frac{x}{3} - z = x - 7$
$x = -\frac{3z}{2} + \frac{21}{2}$

(h) $x + 2z = xz$
$x = \frac{2z}{z-1}$

(i) $\frac{x}{2} - y = 2x$
$x = -\frac{2y}{3}$

(j) $x - z + 3 = 2x$
$x = -z + 3$

(k) $10x + 1 = 6x$
$x = -\frac{1}{4}$

(l) $2x + 4 = x + 1$
$x = -3$

(m) $\frac{x}{2} - 2 = x + z$
$x = -2z - 4$

(n) $x + y + 8 = 2x$
$x = y + 8$

(o) $2x - 1 = x + 5$
$x = 6$

Answers

2 Algebra

(a) $x = \dfrac{5z}{z^2 - 1}$

(b) $x = -\dfrac{200}{33}$

(c) $x = z$

(d) $x = 5$

(e) $x = \dfrac{8z}{7} + \dfrac{8}{7}$

(f) $x = \dfrac{z\,(z+1)}{z-1}$

(g) $x = -\dfrac{3z}{2} + \dfrac{21}{2}$

(h) $x = \dfrac{2z}{z-1}$

(i) $x = -\dfrac{2y}{3}$

(j) $x = -z + 3$

(k) $x = -\dfrac{1}{4}$

(l) $x = -3$

(m) $x = -2z - 4$

(n) $x = y + 8$

(o) $x = 6$