1) a) $\frac{t}{4} = 7$

$4 \times \frac{t}{4} = 7 \times 4$

$\boxed{t = 28}$

b) $-48 = 8x$

$-48 = 8x$

$\div 8 \quad \div 8$

$\boxed{-6 = x}$

c) $9x = 54$

$9x = 54$

$\div 9 \quad \div 9$

$\boxed{x = 6}$

d) $\frac{K}{-2} = -11$

$(-2) \times \frac{K}{-2} = -11 \times (-2)$

$\boxed{K = +22}$

2) $6x - 7 = -19$

$6x - 7 + 7 = -19 + 7$

$6x = -12$

$6x = -12$

$\div 6 \quad \div 6$

$\boxed{x = -2}$

b) $-7x - 8 = 13$

$-7x - 8 + 8 = 13 + 8$

$-7x = 21$

$-7x = 21$

$\div(-7) \quad \div(-7)$

$\boxed{x = -3}$

3) Let $x \equiv$ # of chicken pieces in a dish

$\frac{x}{4} = 7$

$4 \times \frac{x}{4} = 7 \times 4$

$\boxed{x = 28}$

There is a total of 28 pieces of chicken in a dish.

4) a) $\frac{n}{3} - 2 = 10$

$\frac{n}{3} - 2 + 2 = 10 + 2$

$\frac{n}{3} = 12$

$3 \times \frac{n}{3} = 12 \times 3$

$\boxed{n = 36}$

b) $4 - \frac{p}{5} = 13$

$4 - 4 - \frac{p}{5} = 13 - 4$

$\frac{-p}{5} = 9$

$5 \times \frac{-p}{5} = 9 \times 5$

$-p = 45$

$\div -1 \quad \div -1$

$\boxed{p = -45}$

c) $\frac{t}{-9} + 8 = -5$

$\frac{t}{-9} + 8 - 8 = -5 - 8$

$\frac{t}{-9} = -13$

$(-9) \times \frac{t}{-9} = -13 \times (-9)$

$\boxed{t = 117}$

5) a) $\frac{n}{-4} = 7$

$(-4) \times \frac{n}{-4} = 7 \times (-4)$

$\boxed{n = -28}$

b) $\frac{n}{-3} + 4 = -2$

$\frac{n}{-3} + 4 - 4 = -2 - 4$

$\frac{n}{-3} = -6$

$-3 \times \frac{n}{-3} = -6 \times (-3)$

$\boxed{n = 18}$

c) $1 - \frac{n}{6} = 5$

$1 - 1 - \frac{n}{6} = 5 - 1$

$\frac{-n}{6} = 4$

$(6) \times \frac{-n}{6} = 4 \times (6)$

$-n = 24$

$\frac{t}{-6} - 24 = -6$

$\frac{t}{-6} - 24 + 24 = -6 + 24$

$\frac{t}{-6} = 18$

$-6 \times \frac{t}{-6} = 18 \times (-6)$

$\boxed{t = -108}$

a) $5(a+2) = -5$

$5a + 10 = -5$

$5a + 10 - 10 = -5 - 10$

$5a = -15$

$5a = -15$
$\div 5 \quad \div 5$

$\boxed{a = -3}$

b) $4(p-6) = -4$

$4p - 24 = -4$

$4p - 24 + 24 = -4 + 24$

$4p = 20$

$4p = 20$
$\div 4 \quad \div 4$

$\boxed{p = 5}$

c) $-9(d-3) = -45$

$-9d + 27 = -45$

$-9d + 27 - 27 = -45 -$

$-9d = -72$

$-9d = -72$
$\div -9 \quad \div -9$

$\boxed{d = 8}$

3) a) Let i ≡ price of ice cream voucher

5 Friends by meals $5 \times \$8 = 40$

5 Friends by ice cream $5 \times (i)$

b) $5i + 40 = 55$

$5i + 40 - 40 = 55 - 40$

$5i = 15$

$\frac{5i}{\div 5} = \frac{15}{\div 5}$

$\boxed{i = 3}$

The price of the ice cream was $\$3$.

6 a) $-7(a+3) = -14$

$-7a - 21 = -14$

$-7a - 21 + 21 = -14 + 21$

$-7a = 7$

$\frac{-7a}{\div(-7)} = \frac{7}{\div(-7)}$

$\boxed{a = -1}$

b) $-5(7 - r + 11) = 10$

$-35 + 5r - 55 = 10$

$5r - 90 = 10$

$5r - 90 + 90 = 10 + 90$

$5r = 100$

$\frac{5r}{\div 5} = \frac{100}{\div 5}$

$\boxed{r = 20}$