

Changing the subject lesson 6 – answers

$$1) \quad a \underbrace{- 12}_{+12} = \underbrace{b}_{+12}$$

$$\underline{\underline{a = b + 12}}$$

$$2) \quad \underbrace{-g}_{+g} + h = \underbrace{j}_{+g}$$

$$\underline{\underline{h = j + g}}$$

$$3) \quad \underbrace{t}_{-t} - s = \underbrace{3r}_{-t}$$

$$\underbrace{-s}_{\times -1} = \underbrace{3r}_{\times -1} \underbrace{- t}_{\times -1}$$

$$\underline{\underline{s = -3r + t}}$$

$$4) \quad \underbrace{12p}_{\div 12} = \underbrace{24q}_{\div 12}$$

$$\underline{\underline{p = 2q}}$$

$$5) \quad \underbrace{\frac{p}{3}}_{\times 3} = \underbrace{-q}_{\times 3}$$

$$\underline{\underline{p = -3q}}$$

$$6) \quad \underbrace{12t}_{\times r} = \underbrace{\frac{s}{r}}_{\times r}$$

$$12rt = s$$

$$\underline{\underline{s = 12rt}}$$

$$7) \quad 5a \underbrace{+ b}_{-b} = \underbrace{c}_{-b}$$

$$\underbrace{5a}_{\div 5} = \underbrace{c - b}_{\div 5}$$

$$\underline{\underline{a = \frac{c - b}{5}}}$$

$$8) \quad -5a \underbrace{- b}_{+b} = \underbrace{c}_{+b}$$

$$\underbrace{-5a}_{\div -5} = \underbrace{c + b}_{\div -5}$$

$$\underline{\underline{a = -\frac{c + b}{5}}}$$

$$9) \quad q = 3r - p$$

$$3r \underbrace{- p}_{+p} = \underbrace{q}_{+p}$$

$$\underbrace{3r}_{\div 3} = \underbrace{q + p}_{\div 3}$$

$$\underline{\underline{r = \frac{q + p}{3}}}$$

$$10) \quad \underbrace{t}_{-t} + 4s = \underbrace{16}_{-t}$$

$$\underbrace{4s}_{\div 4} = \underbrace{16 - t}_{\div 4}$$

$$\underline{\underline{s = 4 - \frac{t}{4}}}$$

$$11) \quad -l = 20m - 20$$

$$20m \underbrace{- 20}_{+20} = \underbrace{l}_{+20}$$

$$\underbrace{20m}_{\div 20} = \underbrace{l + 20}_{\div 20}$$

$$\underline{\underline{m = \frac{l}{20} + 1}}$$

$$12) \quad m = -3n + p$$

$$-3n \underbrace{+ p}_{-p} = \underbrace{m}_{-p}$$

$$\underbrace{-3n}_{\div -3} = \underbrace{m - p}_{\div -3}$$

$$\underline{\underline{n = -\frac{(m - p)}{3}}}$$

$$13) \quad 3c \underbrace{+ d}_{-d} = \underbrace{4e}_{-d}$$

$$\underbrace{3c}_{\div 3} = \underbrace{4e - d}_{\div 3}$$

$$\underline{\underline{c = \frac{4e - d}{3}}}$$

$$14) \quad q + 12 = 4p$$

$$\underbrace{4p}_{\div 4} = \underbrace{q + 12}_{\div 4}$$

$$\underline{\underline{p = \frac{q}{4} + 3}}$$

$$13) \quad 3x \underbrace{+ 15}_{-15} = \underbrace{6y}_{-15}$$

$$\underbrace{3x}_{\div 3} = \underbrace{6y - 15}_{\div 3}$$

$$\underline{\underline{x = \frac{6y - 15}{3}}}$$

