

$$1) \frac{ab}{a} = \frac{c}{a} \text{ for } b$$

$$b = \frac{c}{a}$$

$$3) (g) \frac{f}{g} x = b(g) \text{ for } x$$

$$\frac{fx}{f} = \frac{bg}{f}$$

$$x = \frac{bg}{f}$$

$$5) (b) 3x = \frac{a}{b} (b) \text{ for } x$$

$$\frac{3bx}{3b} = \frac{a}{3b}$$

$$x = \frac{a}{3b}$$

$$7) \frac{E}{c^2} = \frac{mc^2}{c^2} \text{ for } m$$

$$\frac{E}{c^2} = m$$

$$9) (3)V = (3) \frac{4}{3} \pi r^3 \text{ for } \pi$$

$$\frac{3v}{4r^3} = \frac{4\pi r^3}{4r^3}$$

$$\frac{3v}{4r^3} = \pi$$

$$11) a + c = b \text{ for } c$$

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

$$13) c(m+n) = \frac{4y}{m+n} (m+n) \text{ for } y$$

$$\frac{c(m+n)}{4} = \frac{4y}{4}$$

$$\frac{c(m+n)}{4} = y$$

$$15) (12)V = \frac{\pi Dn}{12} (12) \text{ for } D$$

$$\frac{12v}{\pi n} = \frac{\pi Dn}{\pi n}$$

$$\frac{12v}{\pi n} = D$$

$$17) \frac{p}{p-c} = \frac{n(p-c)}{p-c} \text{ for } n$$

$$\frac{p}{p-c} = n$$

$$19) (L)T = \frac{D-d}{L} (L) \text{ for } D$$

$$LT = D - d$$

$$\frac{+d}{LT+d} = \frac{+d}{D}$$

$$21) \frac{L}{1+at} = \frac{L_0(1+at)}{1+at}$$

$$\frac{L}{1+at} = L_0$$

$$23) 2m + p = 4m + q \text{ for } m$$

$$\frac{-2m}{p} = \frac{2m}{2m+q}$$

$$\frac{-q}{p-q} = \frac{-q}{2m+q}$$

$$\frac{p-q}{2} = \frac{2m}{2}$$

$$\frac{p-q}{2} = m$$

$$25) (r) \frac{k-m}{r} = q(r) \text{ for } k$$

$$k - m = qr$$

$$\frac{+m}{k} = \frac{+m}{qr+m}$$

$$27) h = vt - 16t^2 \text{ for } v$$

$$\frac{+16t^2}{h+16t^2} = \frac{+16t^2}{vt}$$

$$\frac{h+16t^2}{2} = \frac{vt}{2}$$

$$29) Q_1 = P(Q_2 - Q_1) \text{ for } Q_2$$

$$Q_1 = PQ_2 - PQ_1$$

$$\frac{+PQ_1}{Q_1+PQ_1} = \frac{+PQ_1}{PQ_2}$$

$$\frac{Q_1+PQ_1}{P} = \frac{PQ_2}{P}$$

$$\frac{Q_1+PQ_1}{P} = Q_2$$

$$31) (d)R = \frac{kA(T_1+T_2)}{d} \text{ (d) for } T_1$$

$$dR = kA(T_1 + T_2)$$

$$dR = kAT_1 + kAT_2$$

$$\frac{-kAT_2}{dR-kAT_2} = \frac{-kAT_2}{dR-kAT_2}$$

$$\frac{kA}{kA} = \frac{kAT_1}{kA}$$

$$\frac{dR-kAT_2}{kA} = T_1$$

$$33) ax + b = c \text{ for } a$$

$$\frac{-b}{ax} = \frac{-b}{c-b}$$

$$\frac{ax}{x} = \frac{c-b}{x}$$

$$a = \frac{c-b}{x}$$

$$35) \frac{lwh}{lh} = \frac{V}{lh} \text{ for } w$$

$$w = \frac{V}{lh}$$

$$37) \frac{1}{a}(a) + b(a) = \frac{c}{a}(a) \text{ for } a$$

$$1 + ba = c$$

$$\frac{-1}{ba} = \frac{-1}{c-1}$$

$$\frac{ba}{b} = \frac{c-1}{b}$$

$$a = \frac{c-1}{b}$$

$$39) at - bw = 5 \text{ for } t$$

$$\frac{+bw}{at} = \frac{+bw}{5+bw}$$

$$\frac{a}{a} = \frac{5+bw}{a}$$

$$t = \frac{5+bw}{a}$$

$$41) ax + bx = c \text{ for } a$$

$$\frac{-bx}{ax} = \frac{-bx}{c-bx}$$

$$\frac{ax}{x} = \frac{c-bx}{x}$$

$$a = \frac{c-bx}{x}$$

$$43) x + 5y = 3 \text{ for } y$$

$$\frac{-x}{5y} = \frac{-x}{3-x}$$

$$\frac{5y}{5} = \frac{3-x}{5}$$

$$y = \frac{3-x}{5}$$

$$45) 3x + 2y = 7 \text{ for } y$$

$$\frac{-3x}{2y} = \frac{-3x}{7-3x}$$

$$\frac{2y}{2} = \frac{7-3x}{2}$$

$$y = \frac{7-3x}{2}$$

$$47) 5a - 7b = 4 \text{ for } b$$

$$\frac{-5a}{-7b} = \frac{-5a}{4-5a}$$

$$\frac{-7b}{-7} = \frac{4-5a}{-7}$$

$$b = \frac{4-5a}{-7}$$

$$49) 4x - 5y = 8 \text{ for } y$$

$$\frac{-4x}{-5y} = \frac{-4x}{8-4x}$$

$$\frac{-5y}{-5} = \frac{8-4x}{-5}$$

$$y = \frac{8-4x}{-5}$$