

Transformation of Formulae

1) $a = b + c$ (b)
 $a - c = b$

2) $p = 2q + r + s$ (s)
 $p - 2q - r = s$

3) $t + u + 3s = v$ (u)
 $u = v - t - 3s$

4) $pq + r = 3s - t$ (r)
 $r = 3s - t - pq$

5) $v = u + at$ (u)
 $v - at = u$

6) $C = \pi D$ (D)
 $\frac{C}{\pi} = D$

7) $V = IR$ (I)
 $\frac{V}{R} = I$

8) $S = \frac{D}{T}$ (D)
 $ST = D$

9) $S = \frac{D}{T}$ (T)
 $ST = D$
 $T = \frac{D}{S}$

10) $I = \frac{PTR}{100}$ (T)
 $100 I = PTR$
 $\frac{100 I}{PR} = T$

11) $R = \frac{100 I}{PT}$ (P)
 $PTR = 100 I$
 $P = \frac{100 I}{TR}$

12) $V = Lbh$ (b)
 $\frac{V}{Lh} = b$

13) $V = \pi r^2 h$ (h)
 $\frac{V}{\pi r^2} = h$

14) $A = lb$ (b)
 $\frac{A}{l} = b$

$$15) \quad A = \frac{1}{2} bh \quad (h)$$

$$2A = bh$$

$$\frac{2A}{b} = h$$

$$16) \quad A = \frac{1}{2} (a+b) d \quad (b)$$

$$2A = (a+b) d$$

$$\frac{2A}{d} = a+b$$

$$\frac{2A}{d} - a = b$$

$$17) \quad q = 3s+1 \quad (s)$$

$$q-1 = 3s$$

$$\frac{(q-1)}{3} = s$$

$$18) \quad 3u+7 = p \quad (u)$$

$$3u = p-7$$

$$u = \frac{(p-7)}{3}$$

$$19) \quad v = u+at \quad (a)$$

$$v-u = at$$

$$\frac{(v-u)}{t} = a$$

$$20) \quad 3p-1 = s \quad (p)$$

$$3p = s+1$$

$$p = \frac{(s+1)}{3}$$

$$21) \quad 2u-v = p \quad (u)$$

$$2u = p+v$$

$$u = \frac{(p+v)}{2}$$

$$22) \quad A = l^2 \quad (l)$$

$$\sqrt{A} = l$$

$$23) \quad V = l^3 \quad (l)$$

$$\sqrt[3]{V} = l$$

$$24) \quad V = \pi r^2 h \quad (r)$$

$$\frac{V}{\pi h} = r^2$$

$$\sqrt{\frac{V}{\pi h}} = r$$

$$25) \quad V = \frac{1}{3} \pi r^2 h \quad (r)$$

$$3V = \pi r^2 h$$

$$\frac{3V}{\pi h} = r^2$$

$$\sqrt{\frac{3V}{\pi h}} = r$$

$$26) \quad \begin{aligned} h^2 &= a^2 + b^2 & (a) \\ h^2 - b^2 &= a^2 \\ \sqrt{h^2 - b^2} &= a \end{aligned}$$

$$27) \quad \begin{aligned} v^2 &= u^2 + 2as & (u) \\ v^2 - 2as &= u^2 \\ \sqrt{v^2 - 2as} &= u \end{aligned}$$

$$28) \quad \begin{aligned} A &= \pi r^2 & (r) \\ \frac{A}{\pi} &= r^2 \\ \sqrt{\frac{A}{\pi}} &= r \end{aligned}$$

$$29) \quad \begin{aligned} 3p + 2q &= t & (q) \\ 2q &= t - 3p \\ q &= \frac{(t - 3p)}{2} \end{aligned}$$

$$30) \quad \begin{aligned} \frac{0.5ab}{3} &= u & (a) \\ 0.5ab &= 3u \\ a &= \frac{3u}{0.5b} \end{aligned}$$

$$31) \quad \begin{aligned} 3ab + u^2 &= t & (u) \\ u^2 &= t - 3ab \\ u &= \sqrt{t - 3ab} \end{aligned}$$

$$32) \quad \begin{aligned} 8a^2 + 3b^2 &= t & (b) \\ 3b^2 &= t - 8a^2 \\ b^2 &= \frac{(t - 8a^2)}{3} \\ b &= \sqrt{\frac{(t - 8a^2)}{3}} \end{aligned}$$

$$33) \quad \begin{aligned} \frac{6u + 3v^2}{2a} &= x & (a) \\ 6u + 3v^2 &= 2ax \\ \frac{(6u + 3v^2)}{2x} &= a \end{aligned}$$

$$34) \quad \begin{aligned} 8q^2p + 2u &= v & (p) \\ 8q^2p &= v - 2u \\ p &= \frac{(v - 2u)}{8q^2} \end{aligned}$$

