

$$2a) \log(a^x) = \log b \quad b) \log(c^x) = \log(d)$$

$$x = \frac{\log b}{\log a} \quad x = \frac{\log(d)}{\log(c)}$$

$$c) \log(c^x) = \log(f \cdot g)$$

$$x = \frac{\log(f) + \log(g)}{\log(c)}$$

$$\log(1) = 0, 1$$

$$d) \log(h^{x^2}) = \log(i) \quad e) \log(h^x) = \log(j)$$

$$x = \frac{\log(i)}{2 \cdot \log(h)} \quad x = 0$$

$$f) \log(m^{x+1}) = \log(n \cdot o)$$

$$x = \frac{\log(n) + \log(o)}{\log(m)} - 1$$

$$g) \log\left(\frac{x+z}{p}\right) = \log(q)$$

$$x = \frac{\log(q) - \log(p)}{\log(p)} - z$$

$$h) \log(r^{+2x-1}) = \log(t \cdot u)$$

$$x = \frac{\log(t) + \log(u) - \log(r)}{2 \cdot \log(r)}$$

$$i) \log(q^{3x+1}) = v$$

$$x = \frac{\log(v)}{3 \log(q)} - \frac{1}{3}$$

$$j) x^{2x+3} = \frac{x \cdot w}{b}$$

$$x = \frac{\log(z) + \log(w) - \log(b) - 3}{\log(y)}$$