

$$2(1.5a + 4) - 6a = -7$$
$$(3a + 8) - 6a = -7$$

$$3a + 8 - 6a = -7$$
$$-3a + 8 = -7$$

$$\frac{-3a}{-3} = \frac{-15}{-3}$$
$$a = 5$$

$$9(k-10) = -k$$

$$9k - 90 = -k$$

$$\frac{-90}{-10} = \frac{-10k}{-10}$$

$$9 = k$$

$$\sqrt{8 - 3(p - 4)} = 2p$$

$$8 - 3p + 12 = 2p$$

$$\frac{20}{5} = \frac{5p}{5}$$

$$\sqrt{4} = p$$

$$18 = 2(3K + 1) - K$$

$$18 = 6K + 2 - K$$

$$18 = 5K + 2$$

$$\begin{array}{r} -2 \\ -2 \end{array}$$

$$\frac{16}{5} = \frac{5K}{5} \quad \frac{16}{5} = K$$

$$4(x-5) = x+4-5x$$

$$\begin{array}{r} 4x - 20 = -4x + 4 \\ +4x \qquad \qquad +4x \end{array}$$

$$\begin{array}{r} 8x - 20 = 4 \\ +20 \qquad +20 \end{array}$$

$$\frac{8x}{8} = \frac{24}{8}$$

$$x = 3$$

3000

times

repetitions

automaticity

$$2(x-3) + x = 4(x-2)$$

$$2x - 6 + x = 4x - 8$$

$$3x - 6 = 4x - 8$$

$$\begin{array}{r} -3x \quad -3x \\ 3x - 6 = 4x - 8 \end{array}$$

$$\begin{array}{r} -6 = x - 8 \\ +8 \quad +8 \end{array}$$

$$2 = x$$

$$r = \frac{s^2 + h^2}{2h}$$

$$s = 4$$
$$h = 2$$

$$r = \frac{4^2 + 2^2}{2(2)}$$

$$r = \frac{16 + 4}{4}$$

$$r = \frac{20}{4}$$
$$r = 5$$

Substitution

$$a^3 b^3 c^3$$

$$a = 2.5 \quad (2.5^3)(-5^3)(5^3)$$

$$b = -5 \quad 15.625(-125)(125)$$

$$c = 5 \quad 15.625(-125)(125)$$

Exponents
multiplication

$$b^m \cdot b^n = b^{m+n}$$

$$a^3 \cdot a^2 = a^5$$

$$a^3 \cdot b^2 = \text{different bases}$$

cant combine

$$3^2 \cdot 3^3 = 3^5$$

$$3^2 \cdot 2^3 = \text{different bases}$$

cant combine

division

$$\frac{b^n}{b^m} = b^{n-m}$$

$$\frac{b^4}{b^2} = b^2$$

$$\frac{a^2 b^3}{b^2} = a^2 b$$

$$\frac{b^5}{b^6} = b^{-1} = \frac{1}{b}$$

$$b^{-n} = \frac{1}{b^n}$$

$$\frac{1}{b^{-n}} = b^n$$

$$\frac{a^2 b^3 c^5}{a^{-1} b^4 c^2}$$

$$a^3 b^{-1} c^3$$

$$\frac{a^3 c^3}{b}$$

$$b^0 = 1$$

$$\frac{b^2}{b^2}$$

$$b^{2-2} = b^0 = 1$$

$$b^1 = b$$

$$(b^n)^m = b^{(n)(m)} = b^{nm}$$

$$(b^3)^4 = b^{12}$$

$$1) \frac{n^2 + 5}{n^2} \text{ when } n=2$$

$$2) 3^x + (3+1)^y \text{ when } x=3 \\ y=2$$

$$3) a^3 + a^3 =$$

$$4) 3a^2 + 2a^2 =$$

$$5) (3x^4)(5x^6)$$

$$6) (4x^7)(2x^3)$$

$$7) (-2x^2)(x^2 + x^4)$$

$$8) \frac{x^{11}}{x^5} \quad 14) a^0$$

$$15) a^1$$

$$9) \frac{7x^6y^3}{14x^3y}$$

$$10) x^{-3}$$

$$11) \frac{x^3}{x^5}$$

$$12) (3x^5)^3$$

$$13) \frac{2x^{-4}}{(3y^2)^{-3}}$$

$$\frac{a^2}{a^{-1}} = a^{2+1} = a^3$$
$$a^2 \cdot a = a^3$$

