



PING YI SECONDARY SCHOOL

Perseverance Yields Success

Name Hanna

Class 312

Subject MATHS PRACTICE 2C Pg. 61

No. 11

Date 20/11/2009

2f. $m = \frac{y-a}{x-b}$
 $m(x-b) = y-a$

$$mx - bm = y - a$$

$$mx = y - a + bm$$

$$x = \frac{y - a + bm}{m}$$

2g. $fm = gm + 1$ (m)

$$fm - gm = 1$$

$$m(f - g) = 1$$

$$m = \frac{1}{f - g}$$

take out common factor

$$m \quad | \quad fm - gm$$

$$(f - g)$$

2h. $\frac{8x-2}{y-x} = 2$
 $8x-2 = 2(y-x)$

$$8x - 2 = 2y - 2x$$

$$8x + 2x = 2y + 2$$

$$10x = 2y + 2$$

$$x = \frac{2y+2}{10}$$

3a. $F = \frac{mp}{r^2}$

$$\frac{mp}{r^2} = F$$

$$mp = F(r^2)$$

$$F \times r^2 = F(r^2) = Fr^2$$

$$p = \frac{F(r^2)}{m}$$

$$p = \frac{Fr^2}{m}$$

2b.

$$p = \frac{Fr^2}{m}$$

$$p = \frac{(70)(2)^2}{28}$$

$$p = \frac{280}{28}$$

$$p = 10$$

substituted the no into the equation.

$$4a. \quad D = b^2 - 4ac \quad (c)$$

$$b^2 - 4ac = 0$$

$$-4ac = D - b^2$$

$$c = \frac{D - b^2}{-4a}$$

$$4b. \quad c = \frac{D - b^2}{-4a}$$

$$c = \frac{30 - (-10)}{-4(-5)}$$

$$c = \frac{30 - 25}{40}$$

$$c = \frac{5}{40}$$

$$c = \frac{1}{8}$$

$$(-5)^2 = (-5)(-5)$$

$$= 25$$

$$5a. \quad S = 2\pi r(r + h) \quad (h)$$

$$S = 2\pi r^2 + 2\pi rh$$

$$S - 2\pi r^2 = 2\pi rh$$

$$2\pi rh = S - 2\pi r^2$$

$$h = \frac{S - 2\pi r^2}{2\pi r}$$

$$h = \frac{S}{2\pi r} - \frac{2\pi r^2}{2\pi r}$$

$$h = \frac{S}{2\pi r} - r$$

$$5b. \quad h = \frac{S}{2\pi r} - r$$

$$= \frac{176}{2\pi(2)} - 2$$

$$= \frac{176}{4\pi} - 2$$

$$= \frac{56}{4} - 2$$

$$= 14 - 2$$

$$= 12$$

$$h = \frac{176 - 2\pi(2)^2}{2\pi(2)}$$

$$h = \frac{176 - 2\pi(4)}{4\pi}$$

$$h = \frac{176 - 8\pi}{4\pi}$$

$$6a. \quad S = 2b^2 + 4b^2h$$

$$S - 2b^2 = 4b^2h$$

$$4b^2h = S - 2b^2$$

$$h = \frac{S - 2b^2}{4b^2}$$



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$$\begin{aligned} 60 \cdot h &= \frac{5 \cdot 26^2}{4} \\ h &= \frac{264 - 2(6)^2}{4(6)} \\ &= \frac{264 - 72}{24} \\ &= \frac{192}{24} = 8 \text{ cm} \quad \checkmark \end{aligned}$$