

# PENYELESAIAN LENGKAP

## PRAKTIS 3

### Praktis Formatif

1  $5k = \frac{1}{3}r$

$$\frac{1}{3}r = 5k$$

$$r = 15k$$

Jawapan/Answer: A

2 (a)  $h$  ialah 5 lebih daripada  $k$ .  
*is 5 more than  $k$ .*

$$h = k + 5$$

(b)  $t$  ialah dua kali  $y + 2$ .

*$t$  is twice  $y + 2$ .*

$$t = 2(y + 2)$$

(c)  $n$  ialah hasil tambah  $8p$  dan  $q$ .  
 *$n$  is the sum of  $8p$  and  $q$ .*

$$n = 8p + q$$

(d)  $w$  ialah 9 kurang daripada kuasa dua  $r$ .  
 *$w$  is 9 less than the square of  $r$ .*

$$w = r^2 - 9$$

3  $z = 10 + 4a$

4 (a)  $P = 2(12 + 8) + 2x + 2x$

$$P = 40 + 4x$$

(b)  $L = 12(8) + x(x) + x(x)$

$$L = 96 + x^2 + x^2$$

$$L = 96 + 2x^2$$

5 (a)  $10 = 3 \times 1 + 7$

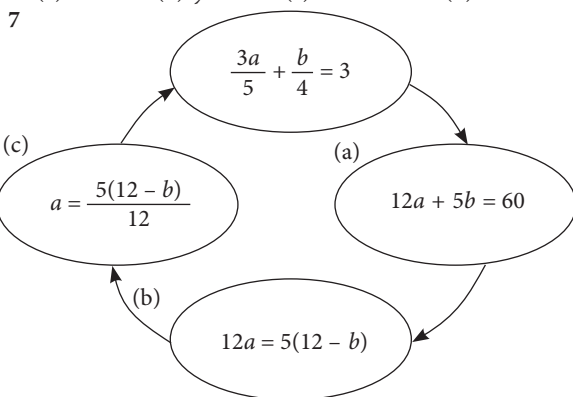
$$13 = 3 \times 2 + 7$$

$$16 = 3 \times 3 + 7$$

$$19 = 3 \times 4 + 7$$

(b)  $y = 3x + 7$

6 (a)  $k$       (b)  $y$       (c)  $m$       (d)  $w$



8  $2xy = yz + 7x$

$$2xy - 7x = yz$$

$$x(2y - 7) = yz$$

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

9  $3k + 4 = 4m^2$

$$3k = 4(m^2 - 1)$$

$$k = \frac{4(m^2 - 1)}{3}$$

10  $R = \frac{1}{5} \sqrt{\frac{T}{N}}$

$$\frac{1}{5} \sqrt{\frac{T}{N}} = R$$

$$\sqrt{\frac{T}{N}} = 5R$$

$$\frac{T}{N} = (5R)^2$$

$$\frac{T}{N} = 25R^2$$

$$T = 25NR^2$$

Jawapan/Answer: B

11  $\frac{k}{3w} - 2kw = \frac{1}{2}x$

$$k - 6kw^2 = \frac{3}{2}xw$$

$$k(1 - 6w^2) = \frac{3}{2}xw$$

$$k = \frac{3xw}{2(1 - 6w^2)}$$

$$k = \frac{xw}{2(1 - 2w)}$$

12  $w = \frac{13s - 15t}{2}$

(a) Apabila/When  $s = 6$ ,  $t = -8$ ,

$$w = \frac{13(6) - 15(-8)}{2}$$

$$= \frac{78 + 120}{2}$$

$$= \frac{198}{2}$$

$$= 99$$

(b) Apabila/When  $t = 1$ ,  $w = -27$ ,

$$-27 = \frac{13s - 15(1)}{2}$$

$$-54 = 13s - 15$$

$$13s = -39$$

$$s = -3$$

(c) Apabila/When  $s = 1$ ,  $w = -31$ ,

$$-31 = \frac{13(1) - 15t}{2}$$

$$-62 = 13 - 15t$$

$$15t = 75$$

$$t = 5$$

$$13 \quad 3pr = \frac{1}{4}y$$

(a) Apabila/When  $p = 1, r = 2,$

$$3(1)(2) = \frac{1}{4}y$$

$$6 = \frac{1}{4}y$$

$$y = 24$$

(b) Apabila/When  $p = 4, y = 8,$

$$3(4)r = \frac{1}{4}(8)$$

$$12r = 2$$

$$r = \frac{1}{6}$$

(c) Apabila/When  $y = 40, r = 5,$

$$3p(5) = \frac{1}{4}(40)$$

$$15p = 10$$

$$p = \frac{2}{3}$$

(d)  $3pr = \frac{1}{4}y$

$$p = \frac{y}{12r}$$

$$14 \quad s = ut - 4.9t^2$$

(a) Apabila/When  $u = 24, t = 3,$

$$s = 24(3) - 4.9(3)^2$$

$$= 72 - 44.1$$

$$= 27.9$$

(b) Apabila/When  $s = 52.5, t = 5,$

$$52.5 = u(5) - 4.9(5)^2$$

$$52.5 = 5u - 122.5$$

$$5u = 175$$

$$u = 35$$

### Praktis Sumatif

1  $4ry = 7r + 12y$

$$4ry - 12y = 7r$$

$$4y(r - 3) = 7r$$

$$y = \frac{7r}{4(r - 3)}$$

Jawapan/Answer: D

2  $\frac{1 - 7p}{q} = 4p$

$$1 - 7p = 4pq$$

$$1 = 4pq + 7p$$

$$1 = p(4q + 7)$$

$$p = \frac{1}{4q + 7}$$

Jawapan/Answer: C

3  $\frac{2}{y} - \frac{1}{2}x = \frac{3}{10x}$

$$\frac{2}{y} = \frac{3}{10x} + \frac{1}{2}x$$

$$\frac{2}{y} = \frac{3 + 5x^2}{10x}$$

$$\frac{y}{2} = \frac{10x}{3 + 5x^2}$$

$$y = \frac{20x}{3 + 5x^2}$$

Jawapan/Answer: C

4  $w - 2 = \frac{4w}{\sqrt{k} + 2}$

$$\sqrt{k} + 2 = \frac{4w}{w - 2}$$

$$\sqrt{k} = \frac{4w}{w - 2} - 2$$

$$\sqrt{k} = \frac{4w - 2(w - 2)}{w - 2}$$

$$\sqrt{k} = \frac{4w - 2w + 4}{w - 2}$$

$$\sqrt{k} = \frac{2w + 4}{w - 2}$$

$$\sqrt{k} = \frac{2(w + 2)}{w - 2}$$

$$k = 4\left(\frac{w + 2}{w - 2}\right)^2$$

Jawapan/Answer: D

5  $(12r - 1)(t - 2) = 16rt$

$$12rt - 24r - t + 2 = 16rt$$

$$-4rt - 24r - t + 2 = 0$$

$$4rt + 24r = 2 - t$$

$$4r(t + 6) = 2 - t$$

$$r = \frac{2 - t}{4(t + 6)}$$

Jawapan/Answer: A

6  $\frac{6p + mn}{3m - np} = \frac{3}{4}$

$$4(6p + mn) = 3(3m - np)$$

$$24p + 4mn = 9m - 3np$$

$$24p + 3np = 9m - 4mn$$

$$3p(8 + n) = m(9 - 4n)$$

$$p = \frac{m(9 - 4n)}{3(8 + n)}$$

7 (a)  $4 = 2\sqrt{2k + 7r} - 3r$

$$4 + 3r = 2\sqrt{2k + 7r}$$

$$(4 + 3r)^2 = 4(2k + 7r)$$

$$16 + 24r + 9r^2 = 8k + 28r$$

$$16 - 4r + 9r^2 = 8k$$

$$k = \frac{1}{8}(16 - 4r + 9r^2)$$

(b) Apabila/When  $r = 6,$

$$k = \frac{1}{8}[16 - 4(6) + 9(6)^2]$$

$$= \frac{1}{8}(16 - 24 + 324)$$

$$= \frac{1}{8}(316)$$

$$= 39.5$$

8 (a)  $S = 2(ab + bc + ac)$

(b) Apabila/When  $b = 3, c = 2, S = 112,$

$$112 = 2(3a + 6 + 2a)$$

$$112 = 2(5a + 6)$$

$$112 = 10a + 12$$

$$100 = 10a$$

$$a = 10$$