Paket - 8.

1. $\frac{1}{3} + \frac{1}{9} = \frac{3}{9} + \frac{1}{9} = \frac{4}{9}$

2. $2\sqrt{6} \times \sqrt{3} = 2\sqrt{18}$
$= 2\sqrt{9 \times 2}$
$= 2.3\sqrt{2}$
$= 6\sqrt{2}$

3. $3\frac{1}{4} + 2\frac{2}{3} : \frac{4}{9} = 3\frac{1}{4} + \frac{8}{3} \times \frac{9}{4}$
$= 3\frac{1}{4} + 6$
$= 9\frac{1}{4}$

4. Selisih $= \frac{1}{9} \times 360.000 = 40.000$

5. bunga 1 bulan $= \frac{1}{12} \times \frac{3}{100} \times 2.000.000$
$= 15.000$

Angsuran $= \frac{2.000.000}{8} + 15.000$
$= 250.000 + 15.000$
$= 265.000$

6. persegi panjang

7. $2, 5, 8, 11, \ldots$
$\underbrace{\quad}_{+3} \underbrace{\quad}_{+3} \underbrace{\quad}_{+3}$

$U_{50} = a + b(n-1)$
$= 2 + 3(50-1)$
$= 2 + 147$
$= 149$

8. $4, 1, \frac{1}{4}, \frac{1}{16}, \ldots$
$\underbrace{\quad}_{\times\frac{1}{4}} \underbrace{\quad}_{\times\frac{1}{4}} \underbrace{\quad}_{\times\frac{1}{4}}$

$U_n = a\,r^{n-1}$
$= 4.(\frac{1}{4})^{n-1}$
$= 2^2 (2^{-2})^{n-1}$

$U_n = 2^2\, 2^{-2n+2}$
$= 2^{-2n+4}$

9. $\frac{1}{3}(x-6) < 6 + \frac{4}{6}x$
$\frac{1}{3}x - 2 < 6 + \frac{2}{3}x \quad |3|$
$x - 6 < 18 + 2x$
$-6 - 18 < 2x - x$
$-24 < x$

10. $2x^2 + x - 6 = 2x^2 - 3x + 4x - 6$
$= x(2x-3) + 2(2x-3)$
$= (2x-3)(x+2)$

11. $(1+4)x - (13-3)y = 3.1 - (-4).13)$
$5x - 10y = 3 + 52$
$5x - 10y - 55 = 0$
$x - 2y - 11 = 0$

12. $6x - 3y - 17 = 0$
$6x + 17 = 3y$
$\frac{6}{3}x - \frac{17}{3} = y$

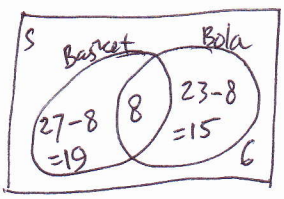
$m = \frac{6}{3} = 2$

13. $b|_1 = x-2$
$b|_2 = x$
$b|_3 = x+2$

$x-2+x+x+2 = 345$
$3x = 345$
$x = 115$

Jumlah terbesar & terkecil =
$x - 2 + x + 2 = 2x = 2.115 = 230$

14.



Jumlah $= 19 + 8 + 15 + 6$
$= 48$

15. $f(x) = ax + b$
$f(-2) = -2a + b = -11$
$f(3) = 3a + b = 4$ —
$-5a = -15$
$a = 3$

Paket 8.

15. $3a + b = 4$

$3.(3) + b = 4$

$b = 4 - 9$

$= -5$

$f(a) = ax + b$

$f(-4) = 3.(-4) + (-5)$

$= -12 - 5$

$= -17$

16. $5b + 5p = 100 \quad | \frac{4}{5} |$

$7b + 4p = 119 \quad | 1 |$

$4b + 4p = 80$

$7b + 4p = 119 \; -$

$-3b = -39$

$b = 13$

$b + p = 20$

$13 + p = 20$

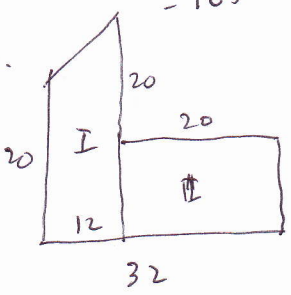
$p = 20 - 13 = 7$

$10b + 5p = 10.(13) + 5(7)$

$= 130 + 35$

$= 165$

17.



$L_I = \frac{20+36}{2} . 12$

$= 56 . 6$

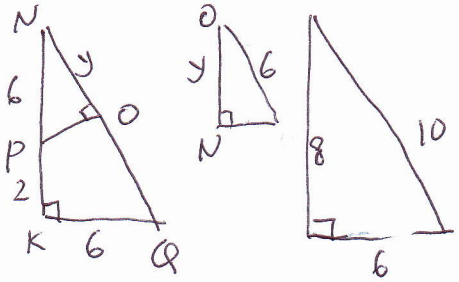
$= 336$

$L_{II} = 20 . 16 = 320$

$L_{semua} = 320 + 336 = 656$

18. $EF = BC = 7$ cm.

19.



$\frac{y}{8} = \frac{6}{10}$

$10y = 48$

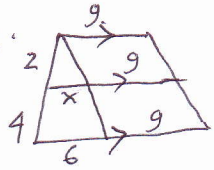
$y = 4,8$

$OQ = 10 - NO$

$= 10 - 4,8$

$= 5,2$

20.



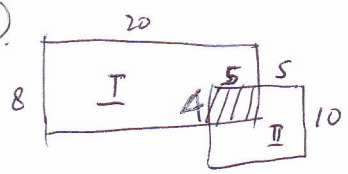
$\frac{2}{2+4} = \frac{x}{6}$

$\frac{2}{6} = \frac{x}{6}$

$x = 2$

$EF = 9 + 2 = 11$

21.



$L_I = 20 . 8 - 54$

$= 160 - 20$

$= 140$ cm²

$L_{II} = 10 . 10 - 54$

$= 100 - 20$

$= 80$

$L_I + L_{II} = 140 + 80 = 220$ cm²

22. Lampu $= \frac{2(12+20)}{12} = \frac{32}{2} = 16$ lampu

23. KA = Garis tinggi

KC = Garis berat

BL = Garis bagi

24. $\angle ABD + \angle DBC = 180°$

$7x + 31° + 2x - 4° = 180°$

$7x + 2x = 180° - 31° + 4°$

$9x = 153°$

$x = \frac{153}{9}$

$= 17°$

$\angle ABD = 7x + 31°$

$= 7.(17)° + 31°$

$= 119° + 31°$

$= 150°$

Paket 8.

(25) $\angle KOL = 180^\circ - 44^\circ$
$= 136^\circ$

$\angle KML = \frac{1}{2} \angle KOL$
$= \frac{1}{2} 136^\circ = 68^\circ$

(26) $\ell^2 = p^2 - (R-r)^2$
$15^2 = 17^2 - (10-r)^2$
$(10-r)^2 = 289 - 225$
$= 64$
$10-r = 8$
$10-8 = r$
$2 = r$

(27) $\frac{\overline{RS}}{\overline{TS}} = \frac{L.RPS}{L.TPS}$
$\frac{16}{30} = \frac{L.RPS}{75}$
$30.L.Rps. = 75.16$
$L.Rps = \frac{75.16}{30_2}$
$= 5.8 = 40\ cm^2$

(28) $K = 4(p+\ell+t)$
$= 4(10+6+4)$
$= 4.20 = 80$ cm.
Sisa kawat $= 100-80 = 20$ cm.

(29) bidang sisi $= 2$
rusuk $= 1$.

(30) $K = 2(p+\ell)$
$120 = 2(48+\ell)$
$60 = 48+\ell$
$60-48 = \ell$
$12 = \ell$

$V = \frac{1}{3} \cdot L_A \cdot t$
$= \frac{1}{3} \cdot 48 \cdot 12^4 \cdot 8$
$= 48.24$
$= 1.152\ cm^3$

(31) $\frac{V_t}{V_B} = \frac{\pi r^2 t}{\frac{4}{3}\pi r^2 r} = \frac{t}{\frac{4}{3}r} = t \times \frac{3}{4r}$
$= 2r \cdot \frac{3}{4r} = \frac{3}{2}$
$V_t = \frac{3}{2} \times V_B = \frac{3}{2} \cdot 300 = 450 cm^3$

(32) $t_\Delta = \sqrt{8^2+6^2} = \sqrt{100} = 10m$
$L_{atap} = 4.L_\Delta = 4. \frac{1}{2} .16.10$
$= 320\ m^2$
Biaya $= 320 \times 60 = 19.200$ r.bu

(33) sisi kubus $= \sqrt[3]{216} = 6$ cm
Luas kubus $= 6s^2 = 6.6^2 = 216\ cm^2$

(34) $L_{selimut} = 2\pi r t$
$= 2. \frac{22}{7} . \frac{7}{2} . 8$
$= 44\ cm^2$

(35) $\bar{x} = \frac{4 \times 70 + x}{5}$
$72. = \frac{280+x}{5}$
$72.5 = 280 + x$
$360 - 280 = x$
$80 = x$

36. modus $= 7$

37. Penjualan 3 tahun $= 60+40+70$
$= 170$ buah.

38. Selisih $= 500 - 100 = 400$

39. $P(\text{jumlah } 8) = \frac{5}{36}$

40. $P(\text{kuning}) = \frac{36}{80} = \frac{9}{20} = \frac{45}{100}$