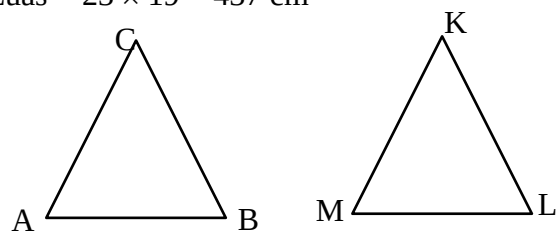
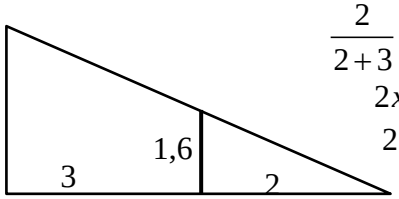
Penyelesaian Paket 4

1. -6 + 32 : (-4)-7 × 3 = -6 – 8 – 21 = - 35
2. $7\sqrt{7}\times\sqrt{14} = 7\sqrt{7\times7\times2}$
   $= 7\times7\sqrt{2} = 49\sqrt{2}$
3. Kolam = $750\,(1-\frac{1}{3}-\frac{2}{5})$
   $= 750(\frac{15-5-6}{15})$
   $= 750(\frac{4}{15})$ =200 m^2
4. Seorang sehari menghasilkan = $\frac{900}{12\times5}$
   = 15 batubata
   30 orang 6 hari = 30 × 6 ×15 = 2700
5. Tab awal = $3.815 : (1 + \frac{9}{12}\frac{12}{100})$
   $= 3.815 : \frac{100+9}{100}$
   $= 3815 \times \frac{100}{109} = 3.500$
6. $U_n = a + b\,(n-1)$
   $U_{55} = 7 + 8(55 - 1) = 7 + 432 = 439$
7. 4, 7, 10, 13, …
   $U_{30} = 4 + 3(30 - 1) = 4 + 87 = 91$
8. Pembilang 5, 7, 9, 11, …
   $U_n = a + b\,(n - 1)$
   $= 5 + 2(n - 1)$
   $= 5 + 2n - 2$
   $= 2n + 3$
   Penyebut: 3, 4, 5, 6, …
   $U_n = a + b\,(n - 1)$
   $= 3 + 1(n - 1)$
   $= 3 + n - 1$
   $= n + 2$
   Jadi $U_n = \frac{2n+3}{n+2}$
9. $x+3 \geq 5x-1$
   $3+1 \geq 5x-x$
   $4 \geq 4x$
   $1 \geq x$
   $x \leq 1$
10. $5a^2+11a+2 = 5a^2+10a+a+2$
    $= 5a(a+2)+1(a+2)$
    $= (5a+1)(a+2)$
11. $\frac{y-2}{5-2}=\frac{x-(-1)}{2-(-1)}$
    $\frac{y-2}{3}=\frac{x+1}{3}$
    $y-2=x+1$
    $0=x-y+3$
12. $3y-6x=-8$
    $3y=6x-8$
    $y=2x-\frac{8}{3}$
13. a + b = 13 a + b = 13
    a – b = 9 a + 2 = 13
    2b = 4 a = 13 – 2
    b = 2 a = 11
    selisih kuadrat = $11^2 - 2^2 = 121 - 4 = 117$
14. P = {1,2,3,4,5,6,7,8,9}
    Q = {2,3,5,7}
    P∪Q = {1,2,3,4,5,6,7,8,9}
15. $f(x) = 4x - 3$
    $f(b) = 4b - 3$
    $17 = 4b - 3$
    17 + 3 = 4b
    20 = 4b
    5 = b
16. a + b = 19 a + b = 19
    a – b = 11 a + 4 = 19
    2b = 8 a = 19 – 4
    b = 4 a = 15
    selisih kuadrat = $(4\times15)^2 = 60^2 = 3.600$
17. p = l + 4,
    K = 2 (p + l)
    84 = 2 (l + 4 + l)
    42 = (2l + 4) p = l + 4
    42 – 4 = 2l p = 9 + 4
    38 = 2l p = 23 cm
    19 = l
    Luas = 23 × 19 = 437 cm^2
18. 

    AB = ML, BC = KL, AC = KM
19. $\frac{AB}{PR}=\frac{5}{10}=\frac{1}{2}$
20. 

    $\frac{2}{2+3}=\frac{1,6}{x}$
    $2x = 5\times1,6$
    $2x = 8$
    $x = 4m$
21. Luas 1 = 6 × 6 – 13 = 36 – 13 = 23
    Luas 2 = 10 × 4 – 13 = 40 – 13 = 27
    Total luas = 23 + 27 = 50 cm^2

22. Jarak = 3 × 2(26 + 14) = 6 × 40 = 240 m
23. Garis berat
24. $5x+15+2x-10=180$

$7x=180-15+10$

$7x=175$

$x=25$

$\angle CBD = 2x - 10 = 2\ (25) - 10 = 40°$

25. $\angle CAD = 2\angle CBD = 2\ (28) = 56°$
26. $d^2 = p^2 - (r_1 + r_2)^2$

$= 17^2 - (5+3)^2$

$= 289 - 64$

$= 225$

$d = 15$ cm

27. $\frac{\widehat{KN}}{\widehat{ML}} = \frac{\angle KPN}{\angle MPL}$

$\frac{\widehat{KN}}{\widehat{33}} = \frac{72}{90}$

$\widehat{KN} = \frac{72 \times 33}{90} = 26,4cm$

28. K = 4 (7 + 5 + 8)

= 4 (20) = 80 cm

Banyak kerangka = $\frac{500cm}{80cm}$.= 6 sisa 20 cm

29. AB = diameter alas
30. $t_{\Delta}^{\ 2} = 13^2 - 5^2$

$= 169 - 25$

$= 144$

$t_{\Delta} = 12$ cm

Luas = $10 \times 10 + 4 \times \frac{1}{2} \times 10 \times 12$

= 100 + 240

= 340 cm²

31. V = $\frac{4}{3}\pi r^3$

$= \frac{4}{3}\pi \times 9 \times 9 \times 9$

$= 972\pi$

32. Rusuk = 72 : 12 = 6 cm

Luas = 6 × r × r

= 6 × 6 × 6

= 216 cm²

33. Luas sisi = $\frac{1}{2} d_1 \times d_2$

$= \frac{1}{2} 3\sqrt{2} \times 3\sqrt{2}$ = 9 cm²

Luas kubus = 6 × luas sisi

= 6 × 9 = 54 cm ²

34. $s^2 = 14^2 + 48^2$

= 196 + 2.304

= 2.500

= 50 cm.

Luas kertas = $50 \times \pi \times r \times s$

$= 50 \times \frac{22}{7} \times 14 \times 50$

= 110.000 cm² = 11 m²

35.

N	3	4	5	6	7	8	9	Σ
F	2	5	10	8	6	5	2	38
fx	6	20	50	48	42	40	18	224

$\bar{X} = \frac{224}{38} = 5,8$

Di atas rata-rata = 8+6 + 5 + 2 = 21

36. Modus = 5
37. 500 + 450 + 400 = 1.350 ton
38. $\frac{20+60+40+70}{4} = \frac{190}{4} = 47,5$
39. Jumlah 8 = (2,6);(3,5);(4,4);(5,3);(6,2)

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

40. P(bukan merah)= $\frac{15+9}{36} = \frac{24}{36} = \frac{2}{3}$