Rumus-rumus berikut boleh membantu anda menjawab soalan. Simbol-simbol yang diberi adalah yang biasa digunakan.

*The following formulae may be helpful in answering the questions. The symbols given are the ones commonly used.*

1. $x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
2. $a^m \times a^n = a^{m+n}$
3. $a^m \div a^n = a^{m-n}$
4. $(a^m)^n = a^{mn}$
5. $\log_a mn = \log_a m + \log_a n$
6. $\log_a \left(\dfrac{m}{n}\right) = \log_a m - \log_a n$
7. $\log_a m^n = n \log_a m$
8. $\log_a b = \dfrac{\log_c b}{\log_c a}$
9. $T_n = a + (n-1)d$
10. $S_n = \dfrac{n}{2}[2a + (n-1)d]$
11. $T_n = ar^{n-1}$
12. $S_n = \dfrac{a(r^n - 1)}{r-1} = \dfrac{a(1-r^n)}{1-r}, r \neq 1$
13. $S_\infty = \dfrac{a}{1-r}$ , $|r| < 1$
14. $y = uv$ , $\dfrac{dy}{dx} = u\dfrac{dv}{dx} + v\dfrac{du}{dx}$
15. $y = \dfrac{u}{v}$ , $\dfrac{dy}{dx} = \dfrac{v\dfrac{du}{dx} - u\dfrac{dv}{dx}}{v^2}$
16. $\dfrac{dy}{dx} = \dfrac{dy}{du} \times \dfrac{du}{dx}$
17. Luas di bawah lengkung
    *Area under a curve*
    $= \int_a^b y \ dx$ atau (*or*)
    $= \int_a^b x \ dy$
18. Isi padu janaan
    *Volume generated*
    $= \int_a^b \pi y^2 \ dx$ atau (*or*)
    $= \int_a^b \pi x^2 \ dy$
19. $I = \dfrac{Q_1}{Q_0} \times 100$
20. $\bar{I} = \dfrac{\sum W_i I_i}{\sum W_i}$
21. ${}^nP_r = \dfrac{n!}{(n-r)!}$
22. ${}^nC_r = \dfrac{n!}{(n-r)!r!}$
23. $P(X = r) = {}^nC_r p^r q^{n-r}$ , $p + q = 1$
24. Min / *Mean*, $\mu = np$
25. $\sigma = \sqrt{npq}$
26. $Z = \dfrac{X - \mu}{\sigma}$
27. Panjang lengkok, $s = j\theta$
    *Arc length*, $s = r\theta$
28. Luas sektor, $L = \dfrac{1}{2} j^2 \theta$
    *Area of sector*, $A = \dfrac{1}{2} r^2 \theta$
29. $\sin^2 A + \text{kos}^2 A = 1$
    $\sin^2 A + \cos^2 A = 1$
30. $\text{sek}^2 A = 1 + \tan^2 A$
    $\sec^2 A = 1 + \tan^2 A$
31. $\text{kosek}^2 A = 1 + \text{kot}^2 A$
    $\text{cosec}^2 A = 1 + \cot^2 A$

32. $\sin 2A = 2 \sin A \text{ kos } A$

$\sin 2A = 2 \sin A \cos A$

33. $\text{kos } 2A = \text{kos}^2 A - \sin^2 A$

$= 2 \text{ kos}^2 A - 1$

$= 1 - 2\sin^2 A$

$\cos 2A = \cos^2 A - \sin^2 A$

$= 2\cos^2 A - 1$

$= 1 - 2\sin^2 A$

34. $\tan 2A = \dfrac{2\tan A}{1 - \tan^2 A}$

35. $\sin (A \pm B) = \sin A \text{ kos } B \pm \text{kos } A \sin B$

$\sin (A \pm B) = \sin A \cos B \pm \cos A \sin B$

36. $\text{kos } (A \pm B) = \text{kos } A \text{ kos } B \mp \sin A \sin B$

$\cos (A \pm B) = \cos A \cos B \mp \sin A \sin B$

37. $\tan (A \pm B) = \dfrac{\tan A \pm \tan B}{1 \mp \tan A \tan B}$

38. $\dfrac{a}{\sin A} = \dfrac{b}{\sin B} = \dfrac{c}{\sin C}$

39. $a^2 = b^2 + c^2 - 2bc \text{ kos } A$

$a^2 = b^2 + c^2 - 2bc \cos A$

40. Luas segi tiga / *Area of triangle*

$= \dfrac{1}{2} ab \sin C$

41. Titik yang membahagi suatu tembereng garis

*A point dividing a segment of a line*

$(x, y) = \left( \dfrac{nx_1 + mx_2}{m+n}, \dfrac{ny_1 + my_2}{m+n} \right)$

42. Luas segi tiga / *Area of triangle*

$= \dfrac{1}{2} \left| (x_1 y_2 + x_2 y_3 + x_3 y_1) - (x_2 y_1 + x_3 y_2 + x_1 y_3) \right|$

43. $|\mathbf{r}| = \sqrt{x^2 + y^2}$

44. $\hat{\mathbf{r}} = \dfrac{x\mathbf{i} + y\mathbf{j}}{\sqrt{x^2 + y^2}}$

[*Lihat halaman sebelah*