

NAMA: _____

KELAS : _____

TARIKH: _____

BAB 1 Quadratic Functions and Equations in One Variable

Fungsi dan Persamaan Kuadratik dalam Satu Pemboleh Ubah

PAPER 1

1. Which of the following is **not** a quadratic expression in one variable?

Antara berikut, yang manakah bukan ungkapan kuadratik dalam satu pemboleh ubah?

- A $\frac{2}{3}y^2 - 5$ B $3x^2 + x^{-2}$
C $p(3 - 2p)$ D $-\frac{1}{3}k^2 + 4k$

2. Express the quadratic equation $\frac{4}{2y-1} = 7 - \frac{3}{y}$ in general form.

Ungkapkan persamaan kuadratik $\frac{4}{2y-1} = 7 - \frac{3}{y}$ dalam bentuk am.

- A $14y^2 + 17y - 3 = 0$
B $14y^2 + 17y + 3 = 0$
C $14y^2 - 17y - 3 = 0$
D $14y^2 - 17y + 3 = 0$

3. Calculate the value of c if the graph of the quadratic function $f(x) = 4(x-5)(x-3) - c$ passes through point $P(2, -3)$.

Hitung nilai c jika graf fungsi kuadratik $f(x) = 4(x-5)(x-3) - c$ melalui titik $P(2, -3)$.

- A 15 B 9
C -9 D -15

4. Solve the following quadratic equation:

Selesaikan persamaan kuadratik berikut:

$$4x(2x-1) - x = 3$$

- A $x = -1, x = \frac{3}{8}$
B $x = -\frac{3}{4}, x = \frac{1}{2}$
C $x = -\frac{1}{2}, x = \frac{3}{4}$
D $x = -\frac{3}{8}, x = 1$

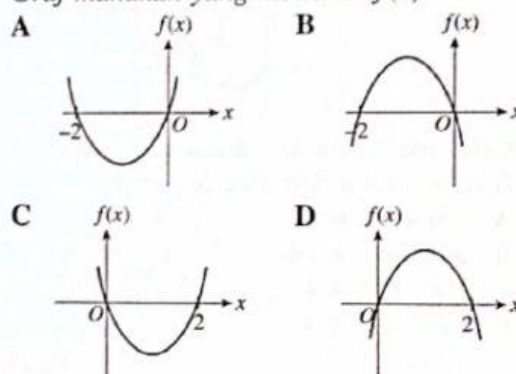
5. Find the roots of the quadratic equation

NOTE $(4p-1)^2 = 4p^2$.

Cari punca-punca bagi persamaan kuadratik $(4p-1)^2 = 4p^2$.

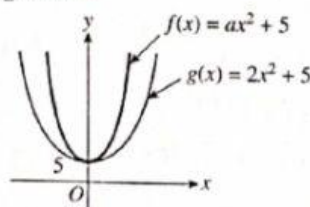
- A $p = -\frac{1}{2}, p = -\frac{1}{6}$ B $p = -\frac{1}{2}, p = \frac{1}{6}$
C $p = -\frac{1}{6}, p = \frac{1}{2}$ D $p = \frac{1}{6}, p = \frac{1}{2}$

6. Which graph represents $f(x) = 2x - x^2$?
Graf manakah yang mewakili $f(x) = 2x - x^2$?



7. The diagram shows two graphs of quadratic functions, $y = f(x)$ and $y = g(x)$, drawn on the same axes.

Rajah di bawah menunjukkan dua graf fungsi kuadratik, $y = f(x)$ dan $y = g(x)$, dilukis pada paksi yang sama.



State the possible value of a .

Nyatakan nilai a yang mungkin.

- A 3 B 1
C $\frac{1}{2}$ D $\frac{1}{3}$