

4. For the equations given below, tell the nature of graphs.

(a) $y = 2x^2$

(b) $y = -4x^2 + 6$

(c) $y = 6e^{-4x}$

(d) $y = 4(1 - e^{-2x})$

(e) $y = \frac{4}{x}$

(f) $y = -\frac{2}{x}$

ans

(a) parabola passing through origin

(b) parabola not passing through origin

(c) exponentially decreasing graph

(d) exponentially increasing graph

(e) Rectangular hyperbola in first and third quadrant

(f) Rectangular hyperbola in second and fourth quadrant