

$$y = f(x)$$

$$f(x) = x^2$$

$$y = g(x)$$

$$g(x) = 3x^2$$

$$f(2x+3) = (2x+3)^2$$

$$g(x+2) = 3(x+2)^2$$

$$f(2x+3) = g(x+2)$$

$$(2x+3)^2 = 3(x+2)^2$$

$$4x^2 + 12x + 9 = 3x^2 + 12x + 12$$

$$x^2 - 3 = 0$$

$$\boxed{x = \pm \sqrt{3}}$$