

# Квадратичная общего вида

$$y = a * x^2 + b * x + c$$

$$a * x^2 + b * x + c = 0$$

$$a (x^2 + bx/a + c/a) = 0$$

$$a (x^2 + 2bx/2a + c/a + (b/2a)^2 - (b/2a)^2) = 0$$

$$a ((x + b/2a)^2 + c/a - (b/2a)^2) = 0$$

$$a ((x + b/2a)^2 + 4ca/(4a^2) - b^2/(4a^2)) = 0$$

$$a ((x + b/2a)^2 - (b^2 - 4ca)/(4a^2)) = 0$$

$$a ((x + b/2a)^2 - (V(b^2 - 4ca))/(V(4a^2)))^2 = 0$$

$$a (((x + b/2a) - (VD)/(2a))((x + b/2a) + (VD)/(2a))) = 0$$

$$a (((x + (b - VD)/(2a))((x + (b + VD)/(2a)))) = 0$$

$$x + (b - VD)/(2a) = 0 \quad x + (b + VD)/(2a) = 0$$

$$x = (-b + VD)/(2a) \quad x = (-b - VD)/(2a)$$

$$y = a * x^2 + b * x + c =$$

$$a (x^2 + bx/a + c/a) =$$

$$a (x^2 + 2bx/2a + c/a + (b/2a)^2 - (b/2a)^2) =$$

$$a ((x + b/2a)^2 + c/a - (b/2a)^2) =$$

$$= a(x + b/2a)^2 + a * [c/a - (b/2a)^2] =$$

$$= a(x + b/2a)^2 + \text{число}$$

$$x + b/2a = 0$$

$$x = -b/(2a)$$

$$y = a * x^2 + b * x + c$$



за 50 лет можно долететь до ближайшей звезды  
со скоростью до 10-20% скорости света