Math 11 • Quadratic Functions

sketch

[#1] $y = (x - 4)^2 - 2$ [#2] $y = -2(x + 3)^2 + 6$ [#3] $y = \frac{1}{2}x^2 - 5$

state the following...

the equation of axis of symmetry

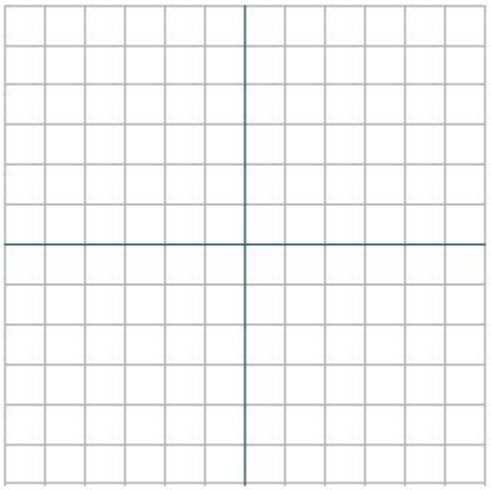
max/min value

domain

range

x–intercept(s) (zeros)

y–intercept



Write equations for each parabola described

[#4]
vertex (1, –2)
through point (5, –6)

[#5]
vertex (2, 3)
y–intercept 6

[#6]
axis of symmetry x = –4
maximum value y = 7
congruent to $y = 3x^2 + 9$

write in graphing form

[#7] $y = x^2 - 8x + 3$ [#8] $y = 3x^2 + 18x + 1$ [#9] $y = -2x^2 + 8x + 3$

[#10] $y = x^2 - 3x$ [#11] $y = \frac{1}{3}x^2 - 2x + 1$ [#12] $h = -4.9t^2 + 8.82t + 1.9$

[#12] Fred has 24 m of fence to enclose a rectangular area. There is an existing wall so he need only fence three sides. What is the maximum area he can enclose?