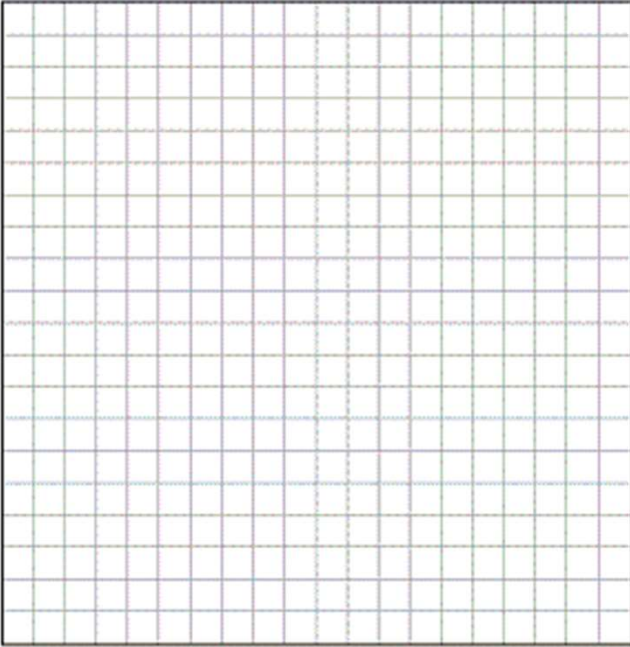


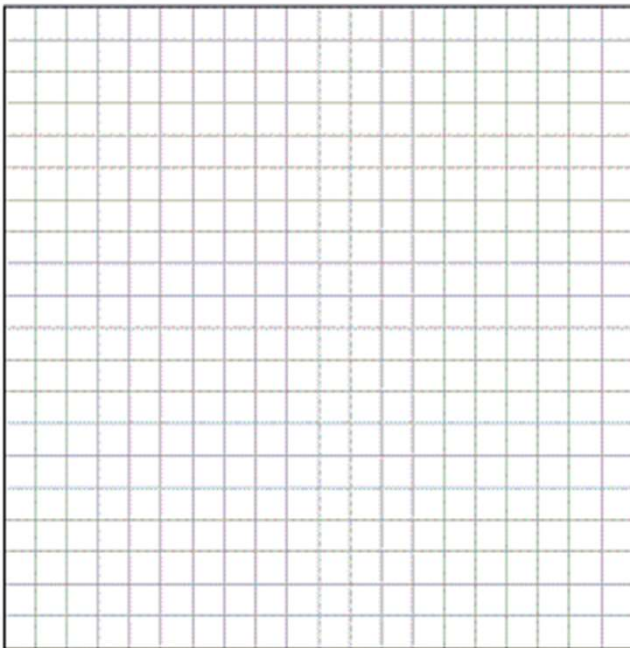
## Sketch Quadratic Graphs

1. Graph the following functions, and identify key features of the graph.

a)  $f(x) = -(x + 2)(x - 5)$



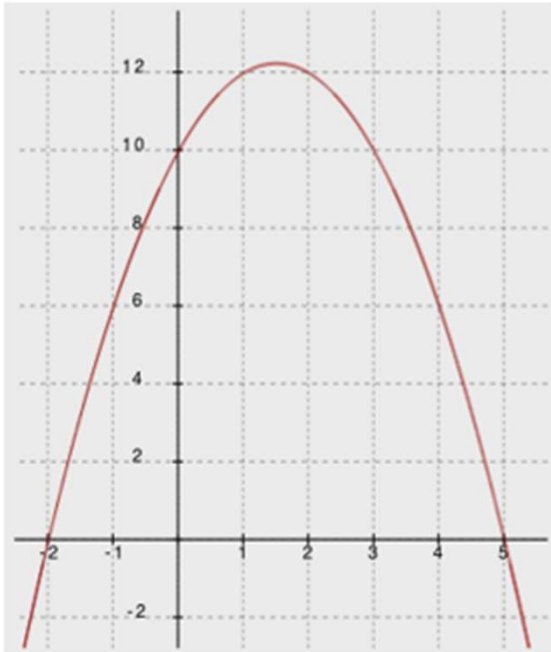
b)  $g(x) = x^2 - 5x - 24$



## Sketch Quadratic Graphs

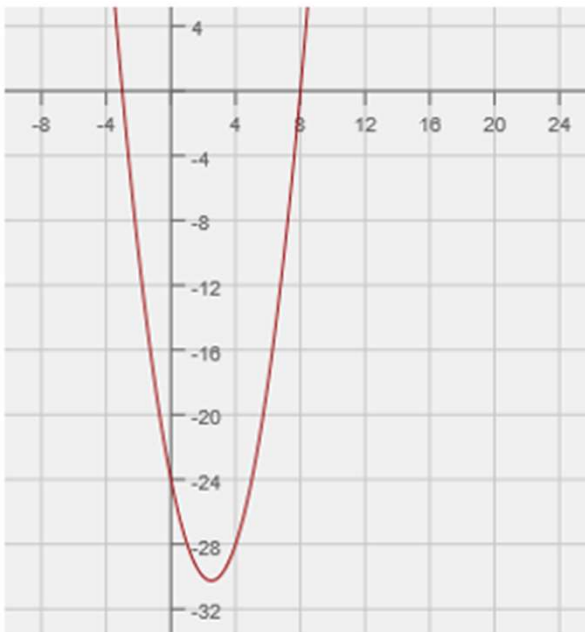
1. Graph the following functions, and identify key features of the graph.

a)  $f(x) = -(x + 2)(x - 5)$



x-intercepts  $(-2, 0)$   $(5, 0)$ ;  
vertex at  $x = 1.5$   $(1.5, 12.25)$ ;  
y-intercept  $(0, 10)$ ;  
end behavior: this graph opens down  
(as  $x$  approaches  $\pm\infty$ ,  $y$  approaches  $-\infty$ )

b)  $g(x) = x^2 - 5x - 24$



x-intercepts  $(-3, 0)$   $(8, 0)$ ;  
vertex at  $x = 2.5$   $(2.5, -30.25)$ ;  
y-intercept  $(0, -24)$ ;  
end-behavior: this graph opens up  
(as  $x$  approaches  $\pm\infty$ ,  $y$  approaches  $\infty$ )

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