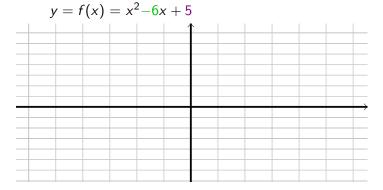
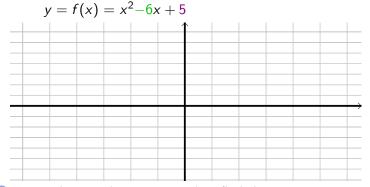
Example: Sketch the graph of:

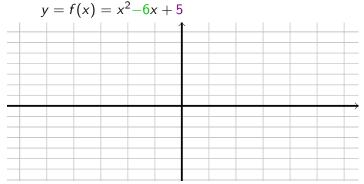


Example: Sketch the graph of:



To graph a quadratic, we need to find the important points:

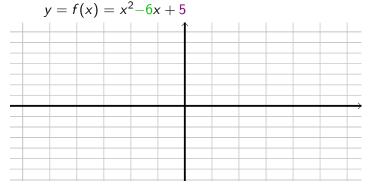
Example: Sketch the graph of:



Recall: To graph a quadratic, we need to find the important points:

y-int

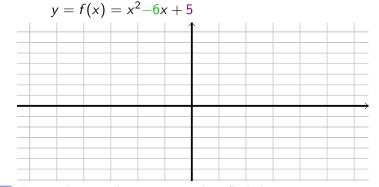
Example: Sketch the graph of:



Recall: To graph a quadratic, we need to find the important points:

y-int

Example: Sketch the graph of:



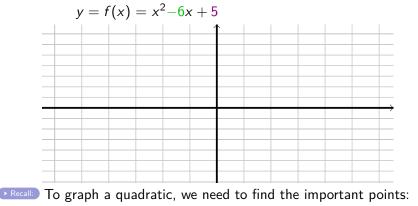
Precall: To graph a quadratic, we need to find the important points:

y-int

x-int

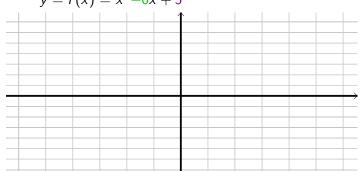
vertex

Example: Sketch the graph of:



y-intx = 0vertex

Example: Sketch the graph of:

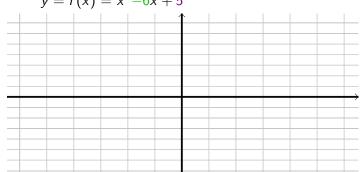


 $y = f(x) = x^2 - 6x + 5$

• Recall: To graph a quadratic, we need to find the important points:

y-int x-int x = 0 \Rightarrow y = $\cdot 0^2 - 6 \cdot 0 + 5$ vertex

Example: Sketch the graph of:

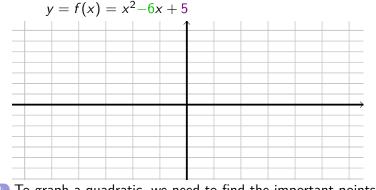


 $y = f(x) = x^2 - 6x + 5$

• Recall: To graph a quadratic, we need to find the important points:

y-int x-int x = 0 \Rightarrow y = $\cdot 0^2 - 6 \cdot 0 + 5 = 5$ vertex

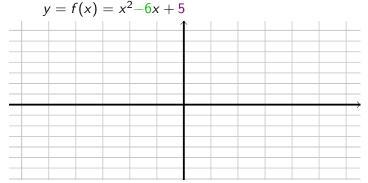
Example: Sketch the graph of:



Recall: To graph a quadratic, we need to find the important points:

y-int: (0,5) x-int $x = 0 \Rightarrow y = \cdot 0^2 - 6 \cdot 0 + 5 = 5$ vertex

Example: Sketch the graph of:



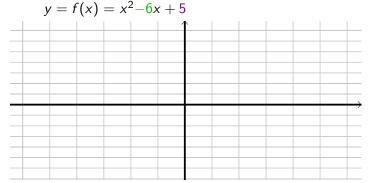
Recall: To graph a quadratic, we need to find the important points:

y-int: (0,5)

$$x = 0 \Rightarrow y = \cdot 0^2 - 6 \cdot 0 + 5 = 5$$

vertex
 $x = 0$

Example: Sketch the graph of:



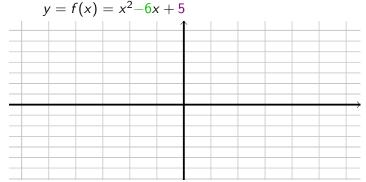
• Recall: To graph a quadratic, we need to find the important points:

y-int: (0,5)

$$x = 0 \Rightarrow y = \cdot 0^2 - 6 \cdot 0 + 5 = 5$$

vertex
 $x = 0 \Rightarrow y = \cdot 0^2 - 6 \cdot 0 + 5 = 5$
 $y = 0 \Rightarrow 0 = x^2 - 6x + 5$

Example: Sketch the graph of:



• Recall: To graph a quadratic, we need to find the important points:

y-int: (0,5)

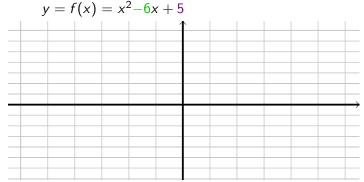
$$x = 0 \Rightarrow y = \cdot 0^2 - 6 \cdot 0 + 5 = 5$$

vertex

$$y = 0 \Rightarrow 0 = x^2 - 6x + 5$$

How do we solve this?

Example: Sketch the graph of:



• Recall: To graph a quadratic, we need to find the important points:

y-int: (0,5)

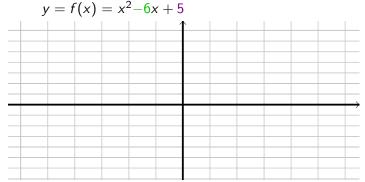
$$x = 0 \Rightarrow y = \cdot 0^2 - 6 \cdot 0 + 5 = 5$$

vertex

$$y = 0 \Rightarrow 0 = x^2 - 6x + 5$$

How do we solve this?
Using the • Quadratic Formula

Example: Sketch the graph of:



• Recall: To graph a quadratic, we need to find the important points:

y-int: (0,5)

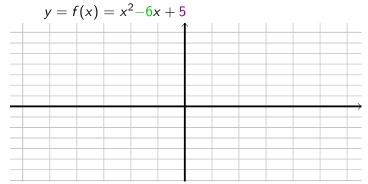
$$x = 0 \Rightarrow y = \cdot 0^2 - 6 \cdot 0 + 5 = 5$$

vertex

$$y = 0 \Rightarrow 0 = x^2 - 6x + 5$$

How do we solve this?
Using the • Quadratic Formula
 $r_1, r_2 = 1, 5$

Example: Sketch the graph of:



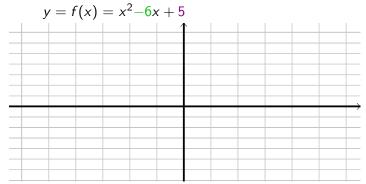
To graph a quadratic, we need to find the important points:

y-int: (0,5)

$$x = 0 \Rightarrow y = \cdot 0^2 - 6 \cdot 0 + 5 = 5$$

vertex

Example: Sketch the graph of:



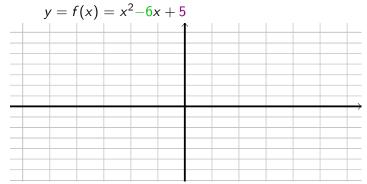
To graph a quadratic, we need to find the important points:

y-int: (0,5)

$$x = 0 \Rightarrow y = \cdot 0^2 - 6 \cdot 0 + 5 = 5$$

vertex
h

Example: Sketch the graph of:



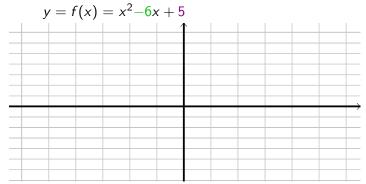
To graph a quadratic, we need to find the important points:

y-int: (0,5)

$$x = 0 \Rightarrow y = \cdot 0^2 - 6 \cdot 0 + 5 = 5$$

vertex
 $h = \frac{-b}{2a}$

Example: Sketch the graph of:



To graph a quadratic, we need to find the important points:

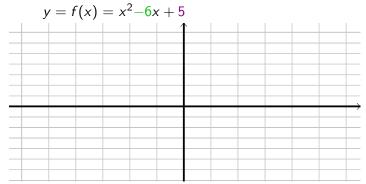
y-int: (0,5)

$$x = 0 \Rightarrow y = \cdot 0^2 - 6 \cdot 0 + 5 = 5$$

vertex

$$h = \frac{-b}{2a} = \frac{-(-6)}{2 \cdot 1}$$

Example: Sketch the graph of:



To graph a quadratic, we need to find the important points:

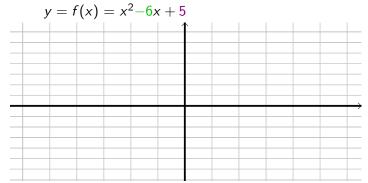
y-int: (0,5)

$$x = 0 \Rightarrow y = \cdot 0^2 - 6 \cdot 0 + 5 = 5$$

vertex

$$h = \frac{-b}{2a} = \frac{-(-6)}{2 \cdot 1} = 3$$

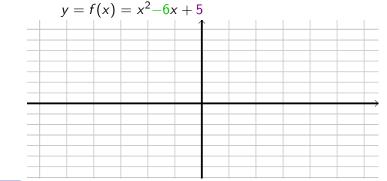
Example: Sketch the graph of:



• Recall: To graph a quadratic, we need to find the important points:

y-int: (0,5) $x = 0 \Rightarrow y = \cdot 0^{2} - 6 \cdot 0 + 5 = 5$ vertex $h = \frac{-b}{2a} = \frac{-(-6)}{2 \cdot 1} = 3$ k

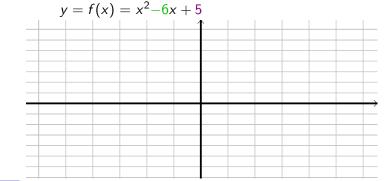
Example: Sketch the graph of:



• Recall: To graph a quadratic, we need to find the important points:

y-int: (0,5) $x = 0 \Rightarrow y = \cdot 0^{2} - 6 \cdot 0 + 5 = 5$ vertex $h = \frac{-b}{2a} = \frac{-(-6)}{2 \cdot 1} = 3$ k = f(h)

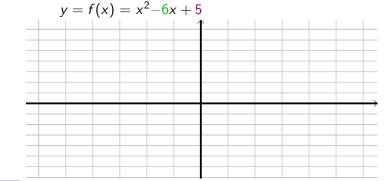
Example: Sketch the graph of:



• Recall: To graph a quadratic, we need to find the important points:

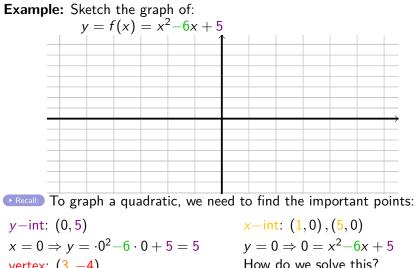
y-int: (0,5)
x = 0
$$\Rightarrow$$
 y = $\cdot 0^2 - 6 \cdot 0 + 5 = 5$
vertex
 $h = \frac{-b}{2a} = \frac{-(-6)}{2 \cdot 1} = 3$
 $k = f(h) = f(3)$

Example: Sketch the graph of:



• Recall: To graph a quadratic, we need to find the important points:

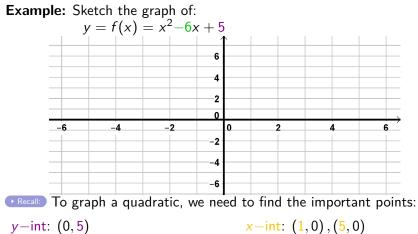
y-int: (0,5)
x = 0
$$\Rightarrow$$
 y = $\cdot 0^2 - 6 \cdot 0 + 5 = 5$
vertex
 $h = \frac{-b}{2a} = \frac{-(-6)}{2 \cdot 1} = 3$
 $k = f(h) = f(3) = -4$



vertex: (3, -4) $h = \frac{-b}{2a} = \frac{-(-6)}{2 \cdot 1} = 3$ k = f(h) = f(3) = -4

Using the Quadratic Formula

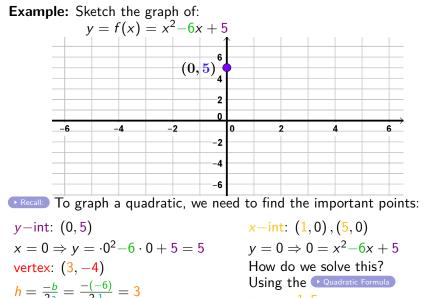
 $r_1, r_2 = 1, 5$



$$x = 0 \Rightarrow y = \cdot 0^{2} - 6 \cdot 0 + 5 = 5$$

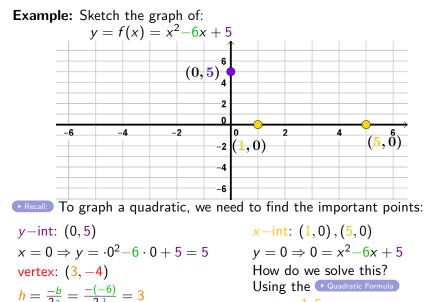
vertex: (3, -4)
$$h = \frac{-b}{2a} = \frac{-(-6)}{2 \cdot 1} = 3$$

$$k = f(h) = f(3) = -4$$



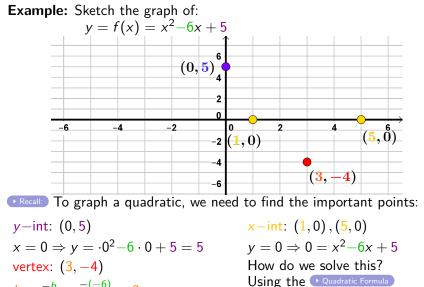
k = f(h) = f(3) = -4

 $r_1, r_2 = 1, 5$



k = f(h) = f(3) = -4

 $r_1, r_2 = 1, 5$



 $r_1, r_2 = 1, 5$

 $h = \frac{-b}{2a} = \frac{-(-6)}{2 \cdot 1} = 3$ k = f(h) = f(3) = -4

