

March 9/16

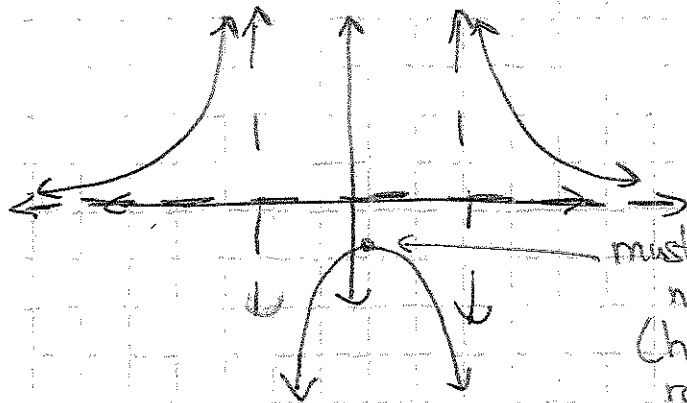
Reciprocals of Quadratics Continued

What did you notice?

$$y = \frac{k}{ax^2 + bx + c}$$

← constant.

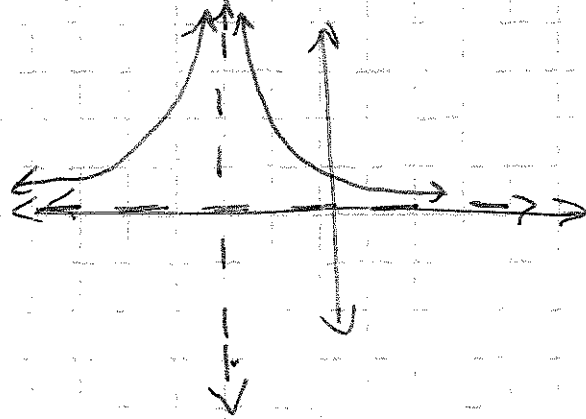
• if $ax^2 + bx + c$ has 2 distinct real roots.



eg. $y = \frac{1}{(x+3)(x-2)}$

must include
max/min
(halfway between
roots; VAs)

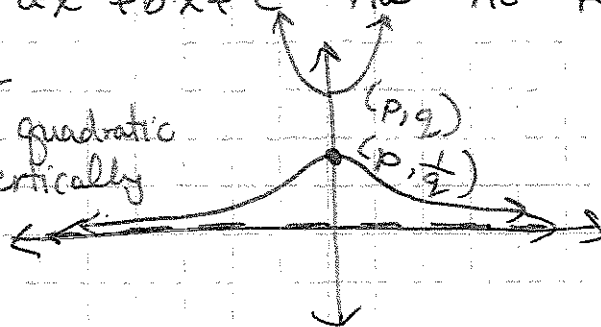
• if $ax^2 + bx + c$ has 2 equal real roots



eg. $y = \frac{1}{(x+2)^2}$

• if $ax^2 + bx + c$ has no real roots

Vertex for
original quadratic
lines up vertically
with the
max/min



eg. $y = \frac{1}{x^2 + 3}$

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