Questions?

October 10, 2018

Chapter 5 Solving

Objective:
Be able to solve more challenging equations.

IC 5-4, 5-13, 5-14, 5-15

If we get there:
HW 5-18 to 5-29

5-1

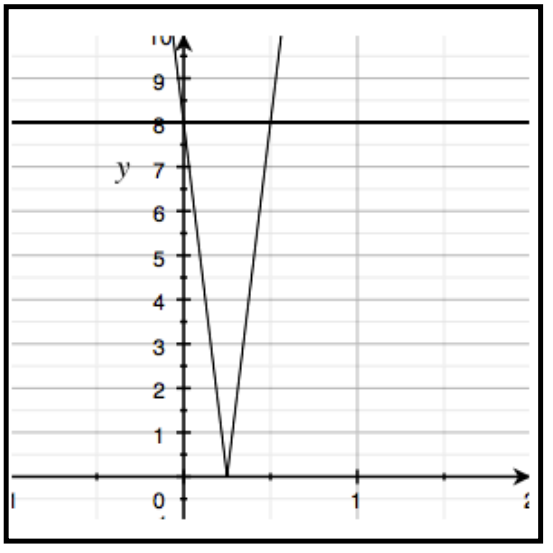
What strategies could you use to solve:

$$(x + 3)^2 - 5 = 4$$

5-4

Solve & check your answer

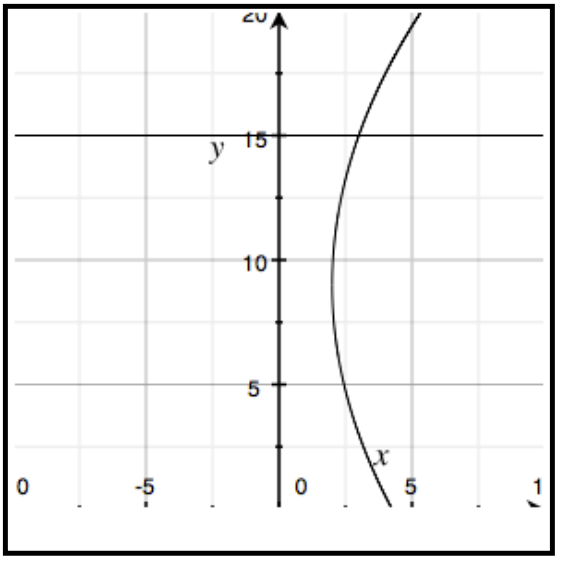
$$4\,|\,8x-2\,|=8$$



5-4

Solve & check your answer

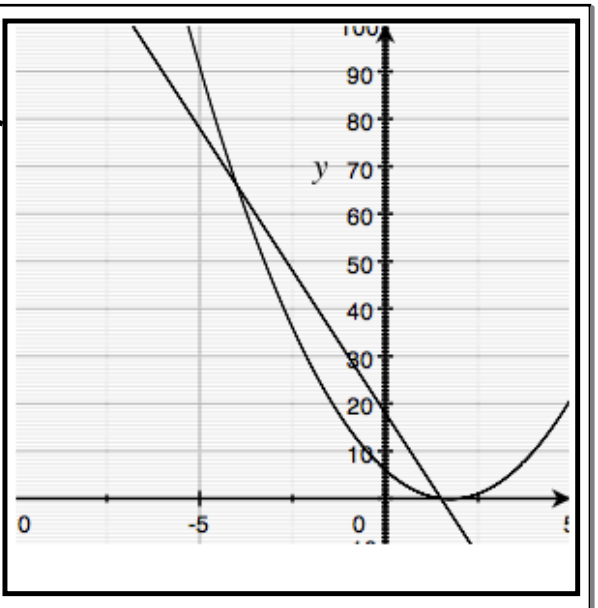
$$3\sqrt{4x-8}+9=15$$



5-4

Solve & check your answer

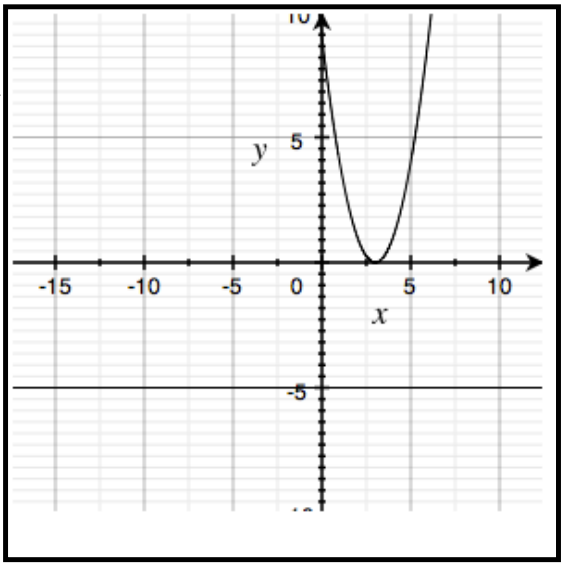
$$(2y-3)(y-2)=-12y+18$$



5-4

Solve & check your answer

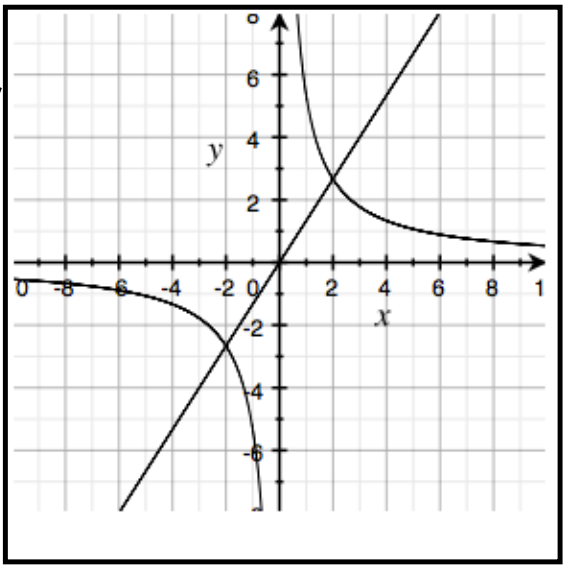
$(x-3)^2-2=-5$



5-4

Solve & check your answer

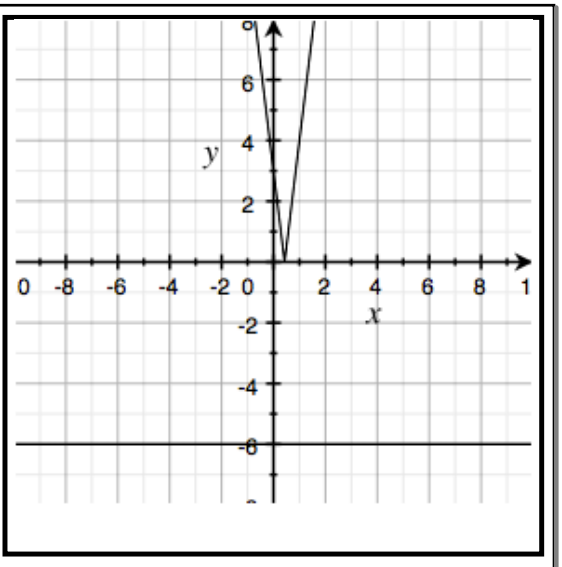
$$\frac{5}{x}+\frac{1}{3x}=\frac{4x}{3}$$



5-4

Solve & check your answer

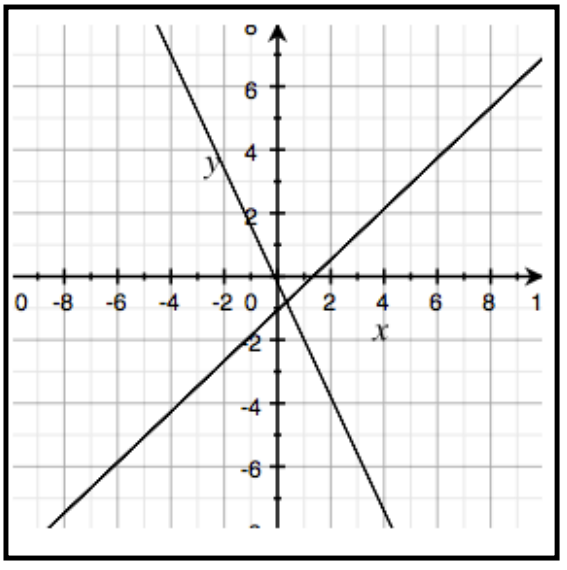
$|3-7x|=-6$



5-4

Solve & check your answer

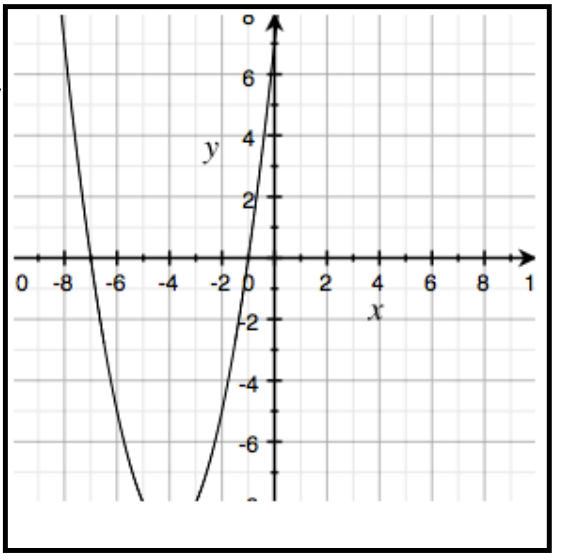
$$\frac{6w-1}{5} - 3w = \frac{12w-16}{15}$$



5-4 end of 5.1.1

Solve & check your answer

$$(x+2)^2+4(x+2)-5=0$$



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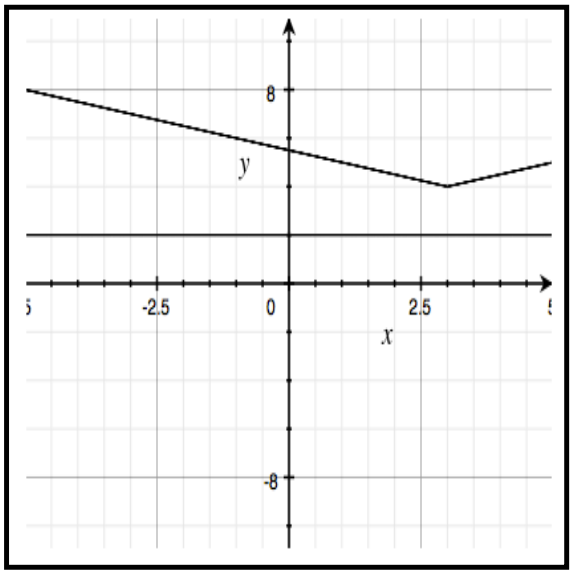
5-13

Extraneous Solutions

Solve & check your answer

$0.5|x - 3| + 4 = 2$



Solve

$\sqrt{x} = 3\sqrt{(x + 2)}$

How many times can these two relations intersect?

1. a line and a parabola

2. two different parabolas

3. a parabola and a circle

4. a parabola and the hyperbola $y = 1/x$

5. the hyperbola and a circle

5-14

Solve & check your answer

$$2x^2 + 5x - 3 = x^2 + 4x + 3$$

5-14

Do these two equations have a relationship?

$$2x^2 + 5x - 3 = x^2 + 4x + 3$$

$$y = x^2 + x - 6$$

5-15

Try solving this algebraically.

$$20x + 1 = 3^x$$

5-15

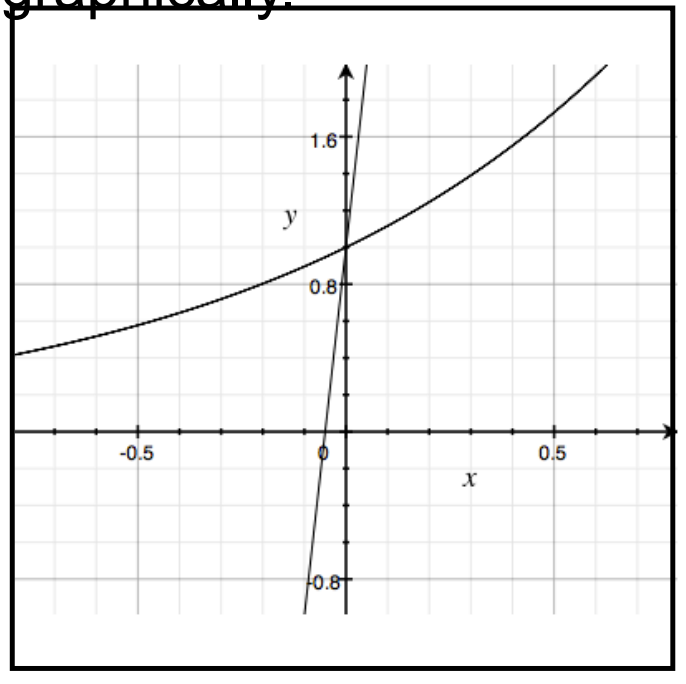
Try solving this graphically.

$$20x + 1 = 3^x$$

5-15

Try solving this graphically.

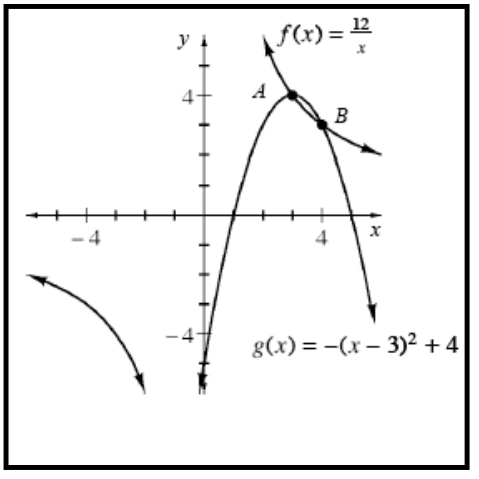
$20x+1=3^x$



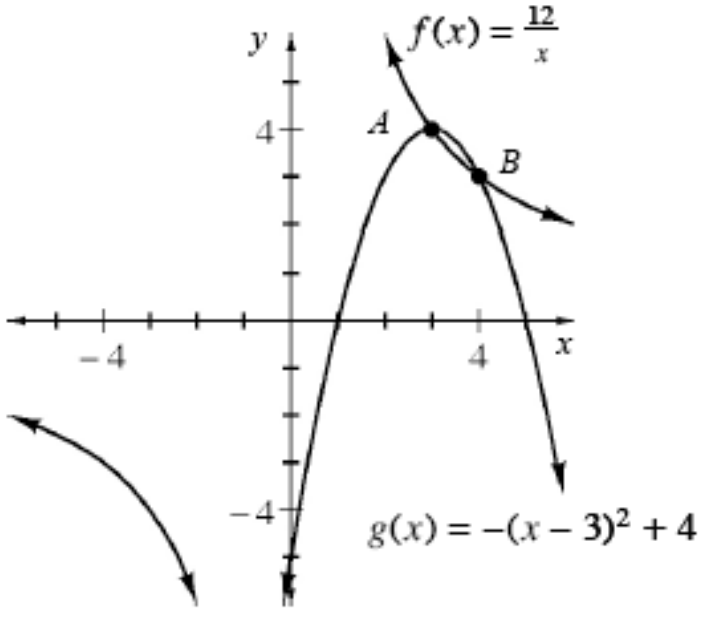
Find the equation that can be solved by examining the intersections of these functions.

(Get rid of denominators first)

$$f(x)=\frac{12}{x} \qquad g(x)=-(x-3)^2+4$$



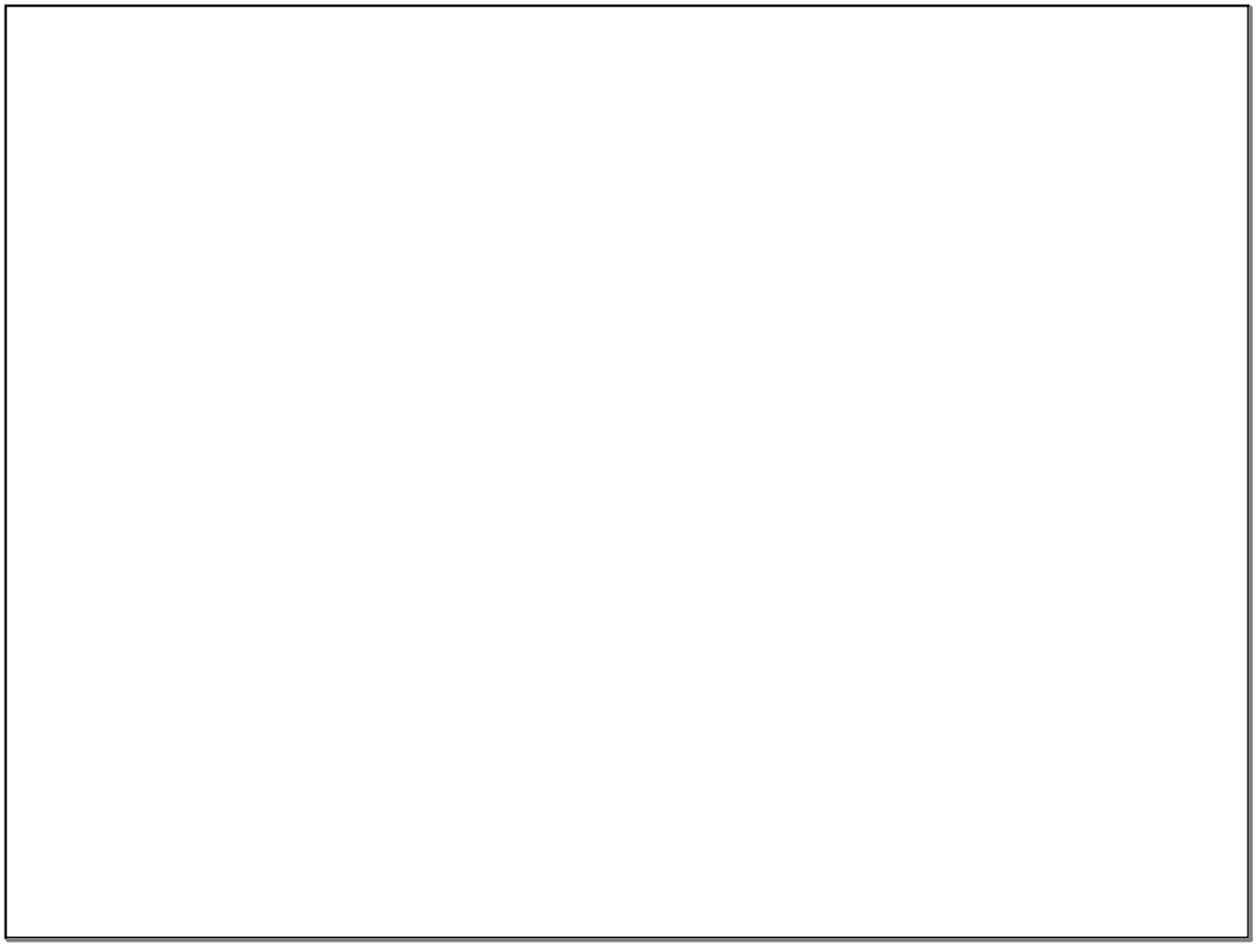
What sort of functions are they?



Are A and B the only solutions?

Find the intersection points of:

$x^2 + y^2 = 25$ and $y = 1/7(x - 4) - 3$

HW 5-18 to 5-29

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