Inverses and Reciprocals Quiz

Determine the inverse for each of the following:

1. $3x+4y=6$

$3y+4x=6$

$4x+3y=6$

2. $y=2x^2-3x+1$

$x=2y^2-3y+1$

3. $5x^3+2y^2=40$

$+2x^2=40$ $\quad 5y^3+2x^2=40$

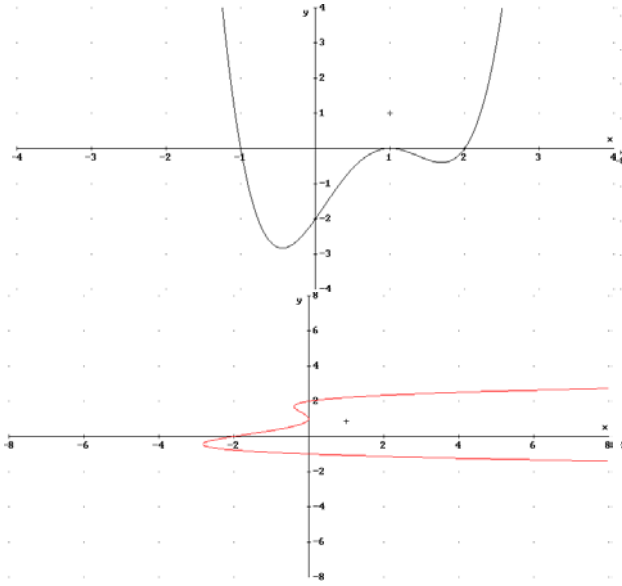
$2x^2 \quad 2x^2+5y^3=40$

4.

x	-3	5	6
y	2	-4	-9

x	2	-4	-9
y	-3	5	6

5.



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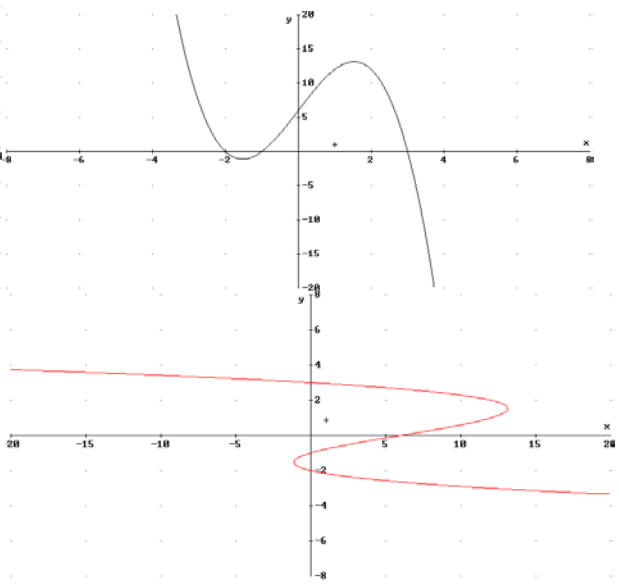


Determine the reciprocal for each of the following:

1. $y=3x-5$

$y=\dfrac{1}{3x-5}$

2. $4x+3y=-7$

$4x+3y=-7$

$3y=-4x-7$

$y=\dfrac{-4x-7}{3}$

$\therefore \text{reciprocal} \rightarrow y=\dfrac{3}{-4x-7}$

3. $x^2+y^2=4$

$x^2+y^2=4$

$y^2=4-x^2$

$y=\sqrt{4-x^2}$

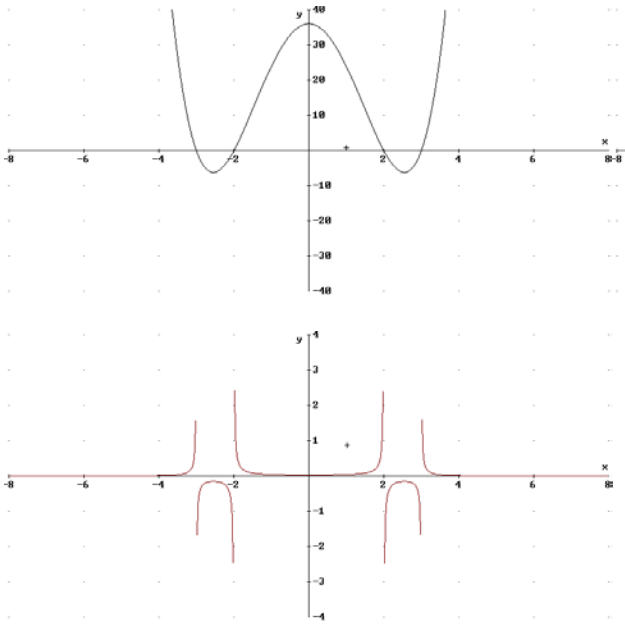
$\therefore \textit{reciprocal} \rightarrow y=\dfrac{1}{\sqrt{4-x^2}}=\dfrac{\sqrt{4-x^2}}{4-x^2}$

4.

x	5	9	12
y	6	3	-2

x	5	9	12
y	1/6	1/3	-1/2

5.



6.