

Review for Exam 1 Key

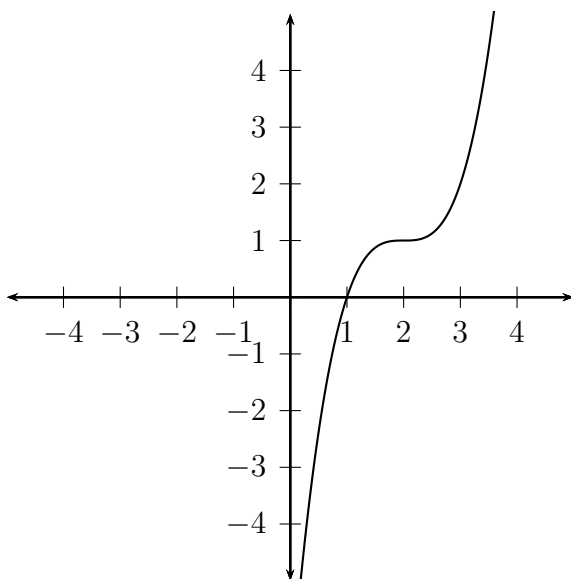
MA 105

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5 Feb 2014

1) $(x + 2)^2 + (y + 2)^2 = 25$.

2) Range = $(-\infty, \infty)$. Domain = $(-\infty, \infty)$.



3) $(0, -4)$, $(-2, 0)$, $(2, 0)$. Symmetric about y-axis.

4) Even.

5) Yes, 1. Yes, 0.

6) Increasing on $(-8, -6) \cup (-4, -1) \cup (2, 4)$. Decreasing on $(-6, -4) \cup (-1, 2)$.
And $f(-4) = 1$. And $f(1) < 0$.

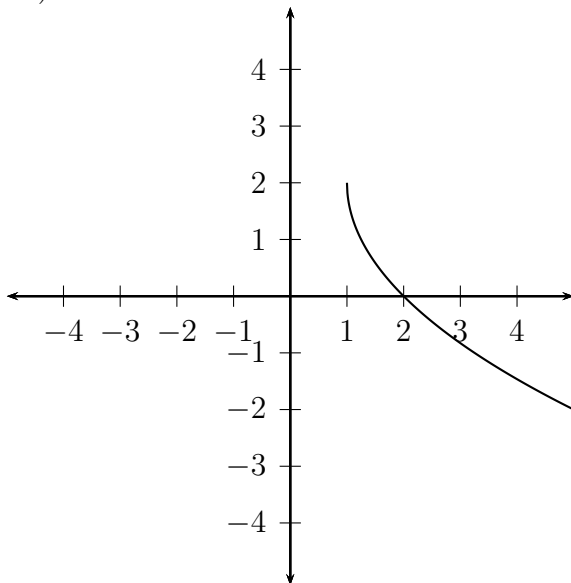
7) Square root.

8) $(x - 2)^2 + (y + 1)^2 = 5$.

9) Domain = $[6, \infty)$.

10) $(0, -\frac{5}{4})$.

11)



12) $\sqrt{58}$.

13) $y = -(x - 1)^3 + 2$.

14) $x^2 + y^2 = 26$.

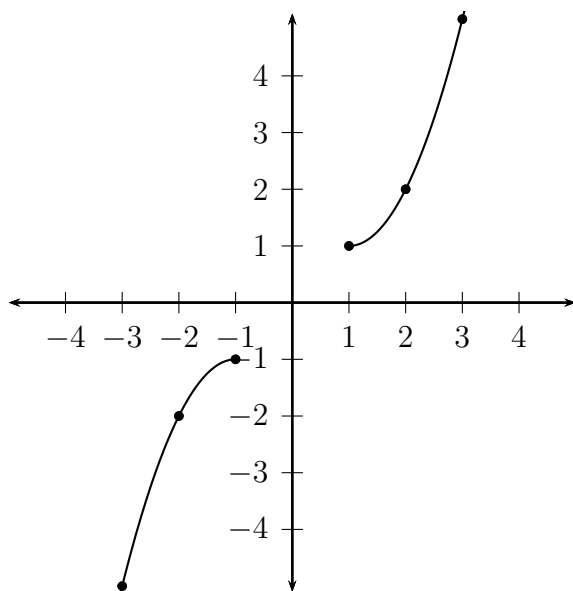
15) $(-1, 1)$

16) $(-16, 0)$, $(-2, 0)$, $(2, 0)$. Symmetry about the x-axis only.

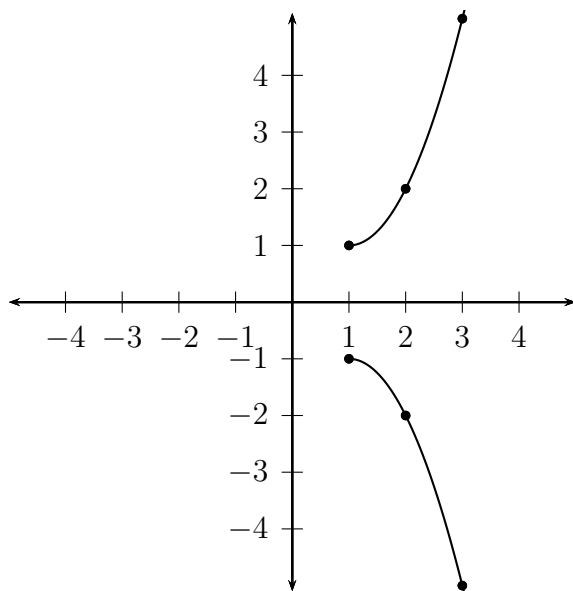
17) Odd.

18) Lengths 3, 3, and $3\sqrt{2}$. It's both.

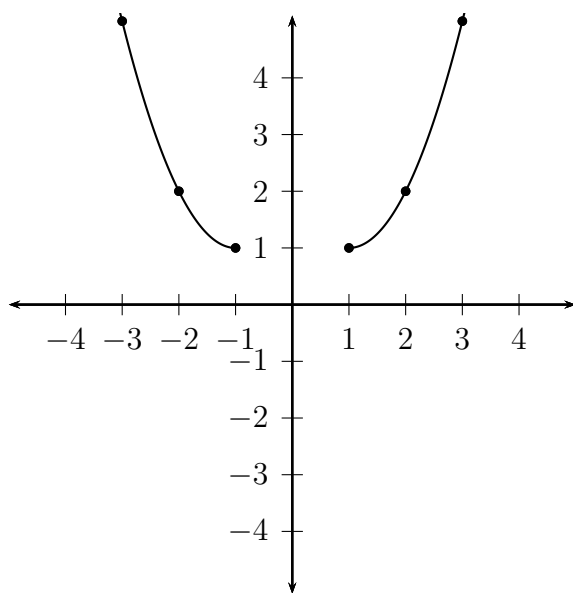
19) Origin symmetric:



And x-axis symmetry:



And y-axis symmetric:



20) $y = -2|x + 1| + 5$.