Exam 4 Review Answer Key

Question	Answer
1	$(-\infty, -2) \cup [0, 5)$
2	$(-\infty, \infty)$
3	$(-2, 1)$
4	no solutions, or $\varnothing$
5	IV
6	distance $= \sqrt{41}$; midpoint $= \left(1, \frac{5}{2}\right)$
7	$(18, -12)$
8	see graph
9	IS a function (each input has only one output); domain: $\{-3, -1, 2, 3\}$; range: $\{0, 4, 5\}$
10	IS a function (each input has only one output); domain: $(-\infty, \infty)$; range: $(-\infty, \infty)$
11	4
12	$x^4 - x^2 + 2$
13	x-intercepts: $(-4, 0), (-1, 0)$; y-intercept: $(0, 4)$
14	$\frac{16}{5}$
15	$3x - 2y = -7$; see graph
16	$y = -\frac{1}{4}x + \frac{5}{4}$; see graph
17	$y = -1$; see graph
18	NOT a function (there are vertical lines that intersect the graph twice); domain: $(-\infty, 0]$; range: $(-\infty, \infty)$