

Algebra 3 Assignment # 8

Graph completely: state Vertex, AOS, Domain and Range:

(1) $y = -x^2$

(2) $y = -(x-1)^2$

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

(4) $y = 3x^2$

(5) $y = \frac{1}{4}x^2$

(6) $y = \frac{1}{4}x^2 + 1$

(7) $y = -2x^2 + 2$

(8) $f(x) = (x-1)^2 + 2$

(9) $f(x) = -(x+1)^2 + 2$

(10) $f(x) = 2(x-3)^2 - 1$

(11) $y = -2(x-1)^2 + 2$

(12) $x = y^2 - 4$

(13) $x = (y-3)^2$

Answers: For graphs see Solved Packet

1. Vertex (0,0) AOS $x=0$; Domain $x=\mathbb{R}$; Range $y \leq 0$
2. Vertex (1,0) AOS $x=1$; Domain $x=\mathbb{R}$; Range $y \leq 0$
3. Vertex (1,3) AOS $x=1$; Domain $x=\mathbb{R}$; Range $y \leq 3$
4. Vertex (0,0) AOS $x=0$; Domain $x=\mathbb{R}$; Range $y \geq 0$
5. Vertex (0,0) AOS $x=0$; Domain $x=\mathbb{R}$; Range $y \geq 0$
6. Vertex (0,1) AOS $x=0$; Domain $x=\mathbb{R}$; Range $y \geq 1$
7. Vertex (0,2) AOS $x=0$; Domain $x=\mathbb{R}$; Range $y \leq 2$
8. Vertex (1,2) AOS $x=1$; Domain $x=\mathbb{R}$; Range $y \geq 2$
9. Vertex (-1,2) AOS $x=-1$; Domain $x=\mathbb{R}$; Range $y \leq 2$
10. Vertex (3,-1) AOS $x=3$; Domain $x=\mathbb{R}$; Range $y \geq -1$
11. Vertex (1,2) AOS $x=1$; Domain $x=\mathbb{R}$; Range $y \geq 2$
12. Vertex (-4,0) AOS $y=-4$; Domain $x \geq -4$; Range $y=\mathbb{R}$
13. Vertex (0,3) AOS $y=3$; Domain $x \geq 0$; Range $y=\mathbb{R}$