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## Write an equation of the parabola in vertex form.

1. passes through $(2,5)$ and has vertex $(1,2) \quad$ 2. passes through $(-2,5)$ and has vertex $(-1,3)$
2. passes through $(2,-3)$ and has vertex $(0,-4)$ 4. passes through $(-1,-1)$ and has vertex $(-2,-5)$
3. passes through (3,-2) and has vertex $(2,0) \quad$ 6. passes through $(2,2)$ and has vertex $(3,5)$
4. passes through $(-5,-2)$ and has vertex $(-2,-1)$ 8. passes through $(-5,-3)$ and has vertex $(-3,1)$

## Write an equation of the parabola in intercept form.

9. $x$-intercepts: -1 and 3 ; passes through $(1,1)$
10. $x$-intercepts: 2 and 8 ; passes through ( $4,-2$ )
11. $x$-intercepts: -5 and -1 ; passes through $(-3,-4) \quad 12$. $x$-intercepts: 0 and 4; passes through $(3,-6)$
12. $x$-intercepts: -2 and -5 ; passes through $(-1,5) \quad$ 14. $x$-intercepts: -2 and -6 ; passes through $(-3,4)$
13. $x$-intercepts: -3 and 2 ; passes through $(-2,-5) \quad$ 16. $x$-intercepts: 2 and -3 ; passes through $(1,5)$

Write an equation of the parabola in intercept form.
17. passes through $(3,13)(-1,9)(2,3)$
18. passes through $(1,3)(4,9)(2,1)$

