

Build Tasks – Answers



1. Vertex $(1, -3)$, axis $x = 1$, opens up

4. 14

7. Example: $(0, -1)$ and $(2, -1)$

2. Vertex $(-2, 4)$, axis $x = -2$, opens down

5. 3

8. Example: $(-3, 1)$ and $(-1, 1)$

3. Vertex $(5, 1)$, axis $x = 5$, wider

6. 5

9. Example: $(3, 3)$ and $(7, 3)$

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10. $x = -1, 3$

13. No; minimum is 1

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

11. $x = -4, 0$

14. No; maximum is -2

17. $y = -2(x + 1)^2 + 4$

12. $x = 2, 6$

**15. Yes; vertex is
above the axis and
opens down**

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

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

22. $y = -2x^2$

25. **Vertex** $(1, 8)$, **axis** $x = 1$, **x-ints** $-1, 3$,
example $(0, 6), (2, 6)$

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

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

26. **Vertex** $(-2, -2)$,
axis $x = -2$, **x-ints**
 $-4, 0$, **example**
 $(-3, -\frac{3}{2}), (-1, -\frac{3}{2})$

21. $y = -3(x - 4)^2 - 2$

24. $y = 2(x + 4)^2 - 1$

27. **It checks the**
symmetry and shape,
not just the vertex