Determining Vertex of Polynomials

No Calculator

1 . What is the value of $y = a(x + 4)(x + 6)$ at the y-value of the vertex in terms of a?

2 . What is the value of $y = a(x + 5)(x - 5)$ at the y-value of the vertex in terms of a?

3 . What is the value of $y = a(x + 2)(x - 4)$ at the y-value of the vertex in terms of a?

4 . What is the value of $y = a(x + 2)(x + 8)$ at the y-value of the vertex in terms of a?

5 . What is the value of $y = a(x - 4)(x + 2)$ at the y-value of the vertex in terms of a?

6 . What is the value of $y = a(x - 3)(x + 5)$ at the y-value of the vertex in terms of a?

7 . What is the value of $y = a(x - 7)(x - 5)$ at the y-value of the vertex in terms of a?

8 . What is the value of $y = a(x - 2)(x + 4)$ at the y-value of the vertex in terms of a?

9 . What is the value of $y = a(x + 9)(x + 17)$ at the y-value of the vertex in terms of a?

10 . What is the value of $y = a(x + 9)(x + 3)$ at the y-value of the vertex in terms of a?

11 . What is the value of $y = a(x - 10)(x - 12)$ at the y-value of the vertex in terms of a?

12 . What is the value of $y = a(x - 4)(x - 12)$ at the y-value of the vertex in terms of a?

13 . What is the value of $y = a(x - 1)(x + 5)$ at the y-value of the vertex in terms of a?

14 . What is the value of $y = a(x - 6)(x - 12)$ at the y-value of the vertex in terms of a?

15 . What is the value of $y = a(x - 6)(x - 16)$ at the y-value of the vertex in terms of a?

16 . What is the value of $y = a(x + 7)(x + 1)$ at the y-value of the vertex in terms of a?

Answers

1. -a
2. -25a
3. -9a
4. -9a
5. -9a
6. -6a
7. -a
8. -9a
9. -6a
10. -9a
11. -a
12. -6a
13. -9a
14. -9a
15. -25a
16. -9a