

Solve the equation. Give exact solutions. Then approximate the solution to the nearest hundredth, if necessary.

1. $6x^2 = 60$

- [A] $\pm 6\sqrt{10}$; ± 18.97 [B] $\pm\sqrt{10}$; ± 3.16 [C] $\pm 2\sqrt{15}$; ± 7.75 [D] none of these

2. $3x^2 = 6$

- [A] $\pm\sqrt{2}$; ± 1.41 [B] $\pm 3\sqrt{2}$; ± 4.24 [C] $\pm\sqrt{6}$; ± 2.45 [D] none of these

3. $4x^2 = 28$

- [A] $\pm 2\sqrt{7}$; ± 5.29 [B] ± 7 [C] $\pm 4\sqrt{7}$; ± 10.58 [D] none of these

4. $5x^2 = 65$

- [A] $\pm 5\sqrt{13}$; ± 18.03 [B] $\pm\sqrt{65}$; ± 8.06 [C] $\pm\sqrt{13}$; ± 3.61 [D] none of these

5. $2x^2 = 30$

- [A] $\pm 2\sqrt{15}$; ± 7.75 [B] $\pm\sqrt{15}$; ± 3.87 [C] $\pm\sqrt{30}$; ± 5.48 [D] none of these

6. $6x^2 = 108$

- [A] $\pm 18\sqrt{2}$; ± 25.46 [B] $\pm 3\sqrt{2}$; ± 4.24 [C] $\pm 6\sqrt{3}$; ± 10.39 [D] none of these

7. $3x^2 = 18$

- [A] $\pm\sqrt{6}$; ± 2.45 [B] $\pm 3\sqrt{2}$; ± 4.24 [C] $\pm 3\sqrt{6}$; ± 7.35 [D] none of these

8. $4x^2 = 44$

- [A] $\pm\sqrt{11}$; ± 3.32 [B] $\pm 2\sqrt{11}$; ± 6.63 [C] $\pm 4\sqrt{11}$; ± 13.27 [D] none of these

9. $5x^2 = 85$

- [A] $\pm\sqrt{17}$; ± 4.12 [B] $\pm 5\sqrt{17}$; ± 20.62 [C] $\pm\sqrt{85}$; ± 9.22 [D] none of these

10. $2x^2 = 10$

- [A] $\pm\sqrt{10}$; ± 3.16 [B] $\pm\sqrt{5}$; ± 2.24 [C] $\pm 2\sqrt{5}$; ± 4.47 [D] none of these

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11. $2(x-2)^2 - 16 = 0$

[A] $2 \pm 2\sqrt{2}$; 4.83 or -0.83

[B] $2 \pm 4\sqrt{8}$; 13.31 or -9.31

[C] $2 \pm 4\sqrt{2}$; 7.66 or -3.66

[D] $-2 \pm 2\sqrt{2}$; 0.83 or -4.83

12. $4(x-3)^2 - 216 = 0$

[A] $3 \pm 9\sqrt{6}$; 25.05 or -19.05

[B] $3 \pm 9\sqrt{54}$; 69.14 or -63.14

[C] $-3 \pm 3\sqrt{6}$; 4.35 or -10.35

[D] $3 \pm 3\sqrt{6}$; 10.35 or -4.35

13. $3(x-5)^2 - 60 = 0$

[A] $5 \pm 2\sqrt{5}$; 9.47 or 0.53

[B] $-5 \pm 2\sqrt{5}$; -0.53 or -9.47

[C] $5 \pm 4\sqrt{20}$; 22.89 or -12.89

[D] $5 \pm 4\sqrt{5}$; 13.94 or -3.94

14. $2(x-1)^2 - 54 = 0$

[A] $1 \pm 3\sqrt{3}$; 6.2 or -4.2

[B] $1 \pm 9\sqrt{27}$; 47.77 or -45.77

[C] $-1 \pm 3\sqrt{3}$; 4.2 or -6.2

[D] $1 \pm 9\sqrt{3}$; 16.59 or -14.59

15. $4(x+4)^2 - 112 = 0$

[A] $4 \pm 2\sqrt{7}$; 9.29 or -1.29

[B] $-4 \pm 2\sqrt{7}$; 1.29 or -9.29

[C] $-4 \pm 4\sqrt{7}$; 6.58 or -14.58

[D] $-4 \pm 4\sqrt{28}$; 17.17 or -25.17

16. $3(x+4)^2 - 54 = 0$

[A] $-4 \pm 3\sqrt{2}$; 0.24 or -8.24

[B] $4 \pm 3\sqrt{2}$; 8.24 or -0.24

[C] $-4 \pm 9\sqrt{18}$; 34.18 or -42.18

[D] $-4 \pm 9\sqrt{2}$; 8.73 or -16.73

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17. $2(x-5)^2 - 108 = 0$

[A] $-5 \pm 3\sqrt{6}$; 2.35 or -12.35

[B] $5 \pm 9\sqrt{6}$; 27.05 or -17.05

[C] $5 \pm 3\sqrt{6}$; 12.35 or -2.35

[D] $5 \pm 9\sqrt{54}$; 71.14 or -61.14

18. $4(x-3)^2 - 80 = 0$

[A] $3 \pm 4\sqrt{20}$; 20.89 or -14.89

[B] $3 \pm 2\sqrt{5}$; 7.47 or -1.47

[C] $-3 \pm 2\sqrt{5}$; 1.47 or -7.47

[D] $3 \pm 4\sqrt{5}$; 11.94 or -5.94

19. $3(x-1)^2 - 81 = 0$

[A] $1 \pm 9\sqrt{3}$; 16.59 or -14.59

[B] $-1 \pm 3\sqrt{3}$; 4.2 or -6.2

[C] $1 \pm 3\sqrt{3}$; 6.2 or -4.2

[D] $1 \pm 9\sqrt{27}$; 47.77 or -45.77

20. $2(x-2)^2 - 56 = 0$

[A] $2 \pm 4\sqrt{7}$; 12.58 or -8.58

[B] $2 \pm 2\sqrt{7}$; 7.29 or -3.29

[C] $-2 \pm 2\sqrt{7}$; 3.29 or -7.29

[D] $2 \pm 4\sqrt{28}$; 23.17 or -19.17

21. $2x^2 = 12$

22. $5x^2 = 90$

23. $6x^2 = 90$

24. $4x^2 = 48$

25. $3x^2 = 39$

26. $2x^2 = 20$

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27. $5x^2 = 70$

28. $6x^2 = 48$

29. $4x^2 = 20$

30. $3x^2 = 6$

31. $2(x+3)^2 - 108 = 0$

32. $3(x-2)^2 - 81 = 0$

33. $4(x-3)^2 - 32 = 0$

34. $2(x-1)^2 - 108 = 0$