

READY, SET, GO!

Name

Period

Date

READY

Topic: Simplifying Radicals

Simplify each of the radicals below.

1. $\sqrt{8}$

2. $\sqrt{18}$

3. $\sqrt{32}$

4. $\sqrt{20}$

5. $\sqrt{45}$

6. $\sqrt{80}$

7. What is the connection between the radicals above? Explain.

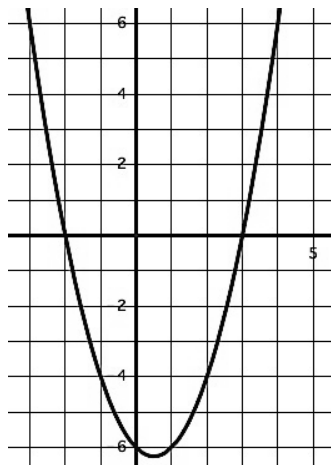
SET

Topic: Determine the nature of the x-intercepts for each quadratic below.

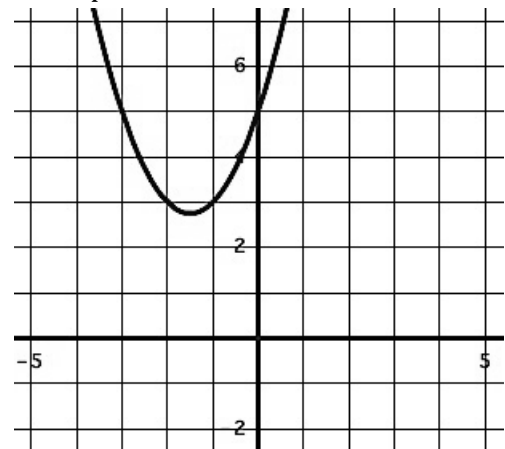
Given the quadratic function, its graph or other information, below determine the nature of the x-intercepts (what type of number it is). Explain or show how you know.

(Whole numbers "W", Integers "Z", Rational "Q", Irrational " \bar{Q} ", or finally, "not Real")

8. Determine the nature of the x-intercepts.



9. Determine the nature of the x-intercepts



Need help? Visit www.rsgsupport.org

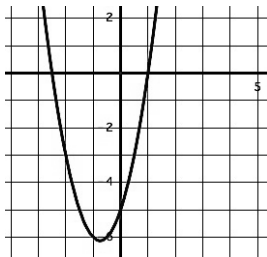
10. Determine the nature of the x-intercepts.

$$f(x) = x^2 + 4x - 24$$

11. Determine the nature of the x-intercepts.

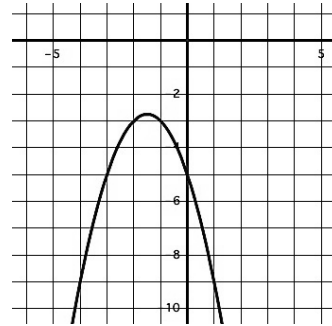
$$g(x) = (2x - 1)(5x + 2)$$

12. Determine the nature of the x-intercepts.



$$f(x) = 2x^2 + 3x - 5$$

13. Determine the nature of the x-intercepts.



14. Determine the nature of the x-intercepts.

$$r(t) = t^2 - 8t + 16$$

15. Determine the nature of the x-intercepts.

$$h(x) = 3x^2 - 5x + 9$$

Determine the number of roots that each polynomial will have.

16. $x^5 + 7x^3 - x^2 + 4x - 21$ 17. $4x^3 + 2x^2 - 3x - 9$ 18. $2x^7 + 4x^5 - 5x^2 + 16x + 3$

GO

Topic: Finding x-intercepts for quadratics using factoring and quadratic formula.

If the given quadratic function can be factored then factor and provide the x-intercepts. If you cannot factor the function then use the quadratic formula to find the x-intercepts.

19. $A(x) = x^2 + 4x - 21$ 20. $B(x) = 5x^2 + 16x + 3$ 21. $C(x) = x^2 - 4x + 1$

22. $D(x) = x^2 - 16x + 4$ 23. $E(x) = x^2 + 3x - 40$ 24. $F(x) = 2x^2 - 3x - 9$

25. $G(x) = x^2 - 3x$ 26. $H(x) = x^2 + 6x + 8$ 27. $K(x) = 3x^2 - 11$

Need help? Visit www.rsgsupport.org