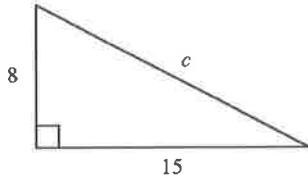


Chapter 10 Test - Practice Test

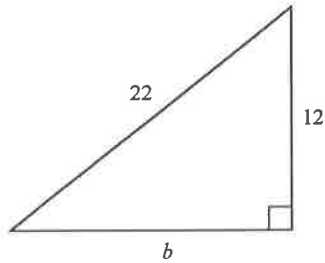
What is the length of the hypotenuse of the right triangle shown?

1.



What is the side length b in the triangle below?

2. A slide is 22 ft long. To get to the top of the slide, you use a vertical 12-foot high rung ladder. What is the distance, b , from the bottom of the slide to the bottom of the stairs? Round your answer to the nearest tenth.



Can the set of lengths be the side lengths of a right triangle? Circle "Yes" or "No".

3. 16 m, 30 m, 34 m

4. 5 m, 24 m, 25 m

Simplify the radical expression. Make sure the radical is COMPLETELY simplified.

5. $\sqrt{50}$

6. $\sqrt{24}$

Name: _____

ID: C

7. $\sqrt{121c^{10}}$

8. $\sqrt{180c^4}$

9. $\sqrt{50c^6d^2}$

10. $3\sqrt{4} \cdot 3\sqrt{14}$

11. $-\sqrt{6y^2} \cdot 2\sqrt{15y^2}$

12.

$$\sqrt{\frac{60W^5}{16}}$$

13. $\sqrt{\frac{7}{25}}$

14. $\frac{2}{\sqrt{11}}$

15. $\frac{2\sqrt{45}}{\sqrt{63}}$

Simplify the expression.

16. $2\sqrt{2} + 2\sqrt{18}$

17. $3\sqrt{6} - 6\sqrt{24}$

18. $(3 - \sqrt{7})(3 + \sqrt{7})$

19. $\sqrt{6}(\sqrt{15} - 6)$

20. $\frac{10}{\sqrt{10} - \sqrt{3}}$

21. $\frac{\sqrt{2} - 1}{\sqrt{2} + 1}$

Name: _____

ID: C

Solve the equation. Check your solution.

22. $9 = \sqrt{h} + 1$

23. $\sqrt{n+5} = 7$

24. The formula $v = \sqrt{64h}$ can be used to find the velocity v in feet per second of an object that has fallen h feet. Find how far the object has fallen if its velocity is **90** feet per second. Round your answer to the nearest hundredth.

25. $\sqrt{7x-5} = \sqrt{6x+9}$

26. $3\sqrt{-8x+8} = 6\sqrt{-5x-5}$

Solve the equation and identify any extraneous solutions. Write the solution and any extraneous solutions. If there is no solution, circle "No solution".

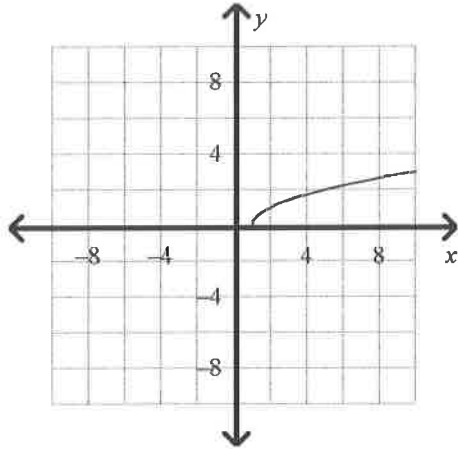
27. $x = \sqrt{2x+8}$

28. $\sqrt{w} = -1$

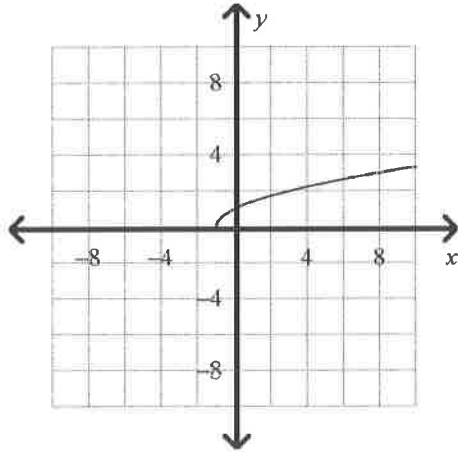
Match the function with its graph.

29. $y = \sqrt{x} + 1$

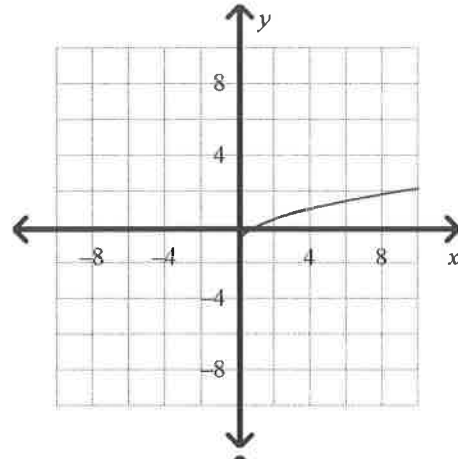
a.



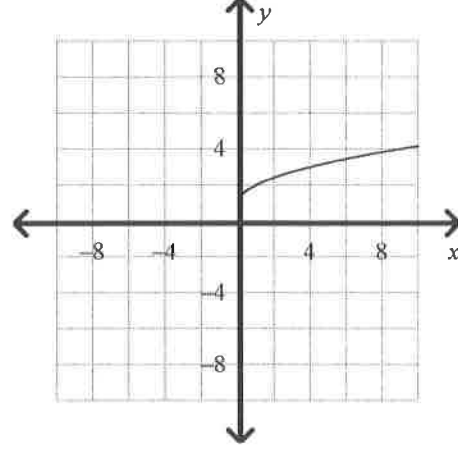
b.



c.



d.

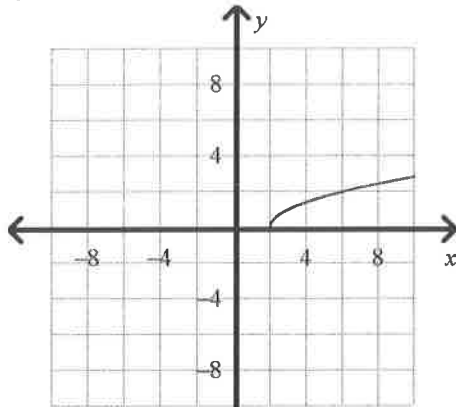


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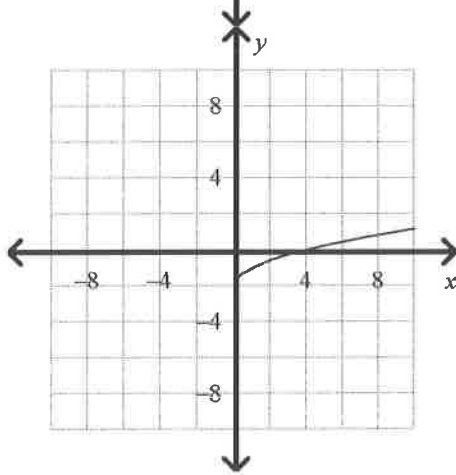
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30. $y = \sqrt{x-2}$

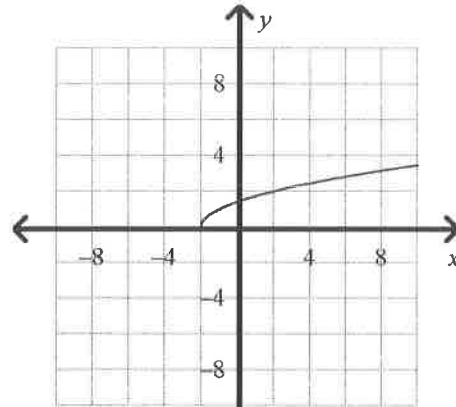
a.



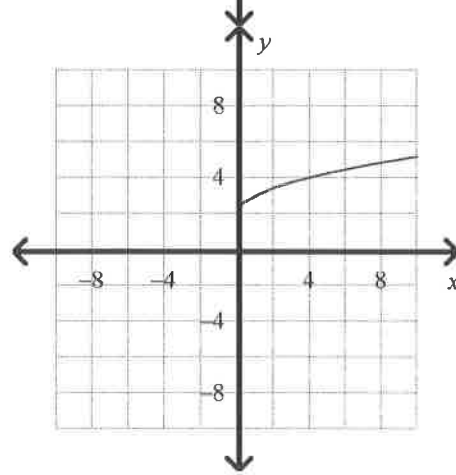
b.



c.



d.



Name

Key

Algebra - Chapter 10.1-10.5

*Calculators Allowed

1.) 17

2.) 18.4 feet

3.) YES or NO

4.) YES or NO

5.) $5\sqrt{2}$

6.) $2\sqrt{6}$

7.) $11c^5$

8.) $60c^2\sqrt{5}$

9.) $5c^3d\sqrt{2}$

10.) $18\sqrt{14}$

11.) $\frac{-6xy^2\sqrt{10}}{w^2\sqrt{15w}}$

12.) $\frac{\sqrt{7}}{2}$

13.) $\frac{\sqrt{7}}{5}$

14.) $\frac{2\sqrt{11}}{11}$

15.) $\frac{2\sqrt{35}}{7}$

16.) $8\sqrt{2}$

17.) $-9\sqrt{6}$

18.) 2

19.) $3\sqrt{10} - 6\sqrt{6}$

20.) $\frac{10(\sqrt{10} + \sqrt{3})}{7}$

21.) $3 + -2\sqrt{2}$

22.) 64

23.) 44

24.) 126.56 feet

25.) 14

26.) $-\frac{7}{3}$

27.) Solution: 4

Extraneous Solution: -2

No Solution

28.) Solution: _____

Extraneous Solution: _____

No Solution

29.) D

30.) A