

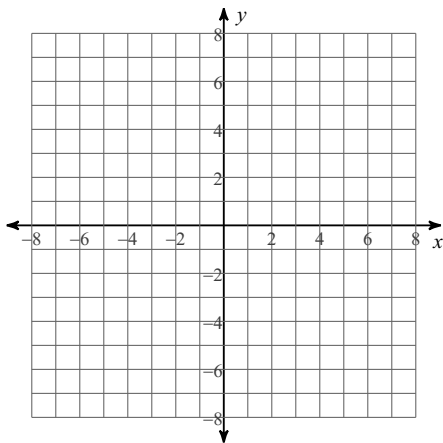
Chapter 10 Review

Date _____ Period _____

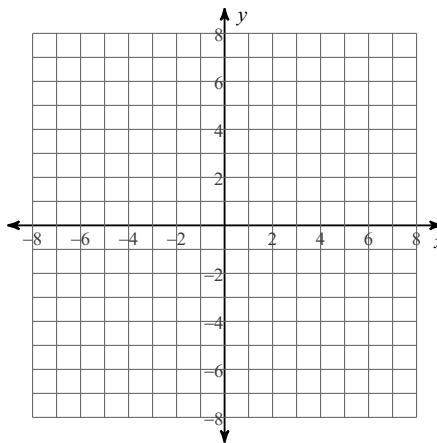
SHOW ALL WORK!

Sketch the graph of each function by making a table of values. Compare to the parent function. State the domain and range.

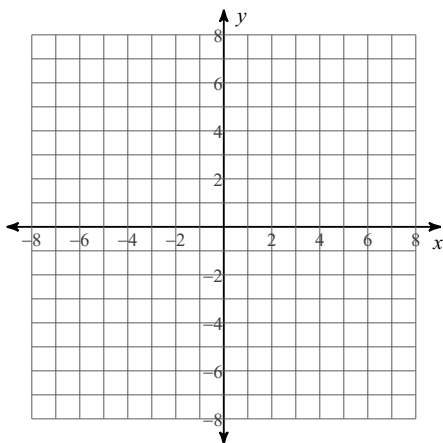
1) $y = \sqrt{x-1} + 3$



2) $y = 3\sqrt{x-2}$



3) $y = -4\sqrt{x} + 5$



Simplify. Use absolute value signs when necessary.

4) $\sqrt{54u^2v^4}$

5) $\sqrt{20x^2y^2}$

Simplify.

6) $\sqrt{5} \cdot \sqrt{15}$

7) $\sqrt{6} \cdot \sqrt{12}$

8) $\sqrt{6}(\sqrt{6} + 5)$

9) $\sqrt{2}(3 - 2\sqrt{5})$

10) $(\sqrt{2} - 3)(\sqrt{2} + 2)$

11) $(-5\sqrt{3} - 1)(-3\sqrt{3} + 1)$

12) $(4 - \sqrt{5})^2$

Simplify.

13) $\frac{5\sqrt{4x}}{\sqrt{3x^3}}$

14) $\frac{2 - \sqrt{3}}{\sqrt{18}}$

15) $\frac{\sqrt{2}}{-3 - 4\sqrt{5}}$

16) $\frac{2\sqrt{2} + 4}{5 - 2\sqrt{5}}$

17) $-3\sqrt{27} - \sqrt{12}$

18) $-3\sqrt{6} + 2\sqrt{54}$

19) $-3\sqrt{27} - \sqrt{12} + 3\sqrt{24}$

20) $-3\sqrt{5} - 3\sqrt{12} - \sqrt{3}$

Solve each equation. Remember to check for extraneous solutions.

21) $7 = \sqrt{1 - 12x}$

22) $\sqrt{3m - 234} = \sqrt{\frac{m}{9}}$

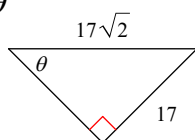
23) $n = \sqrt{18 + 7n}$

24) $v - 2 = \sqrt{6v - 20}$

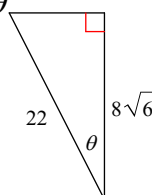
25) $-4 = -x + \sqrt{56 - 2x}$

Find the value of the trig function indicated.

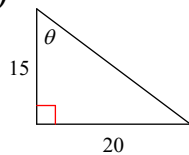
26) $\sin \theta$



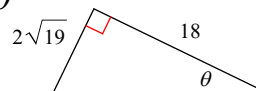
27) $\tan \theta$



28) $\sin \theta$



29) $\cos \theta$

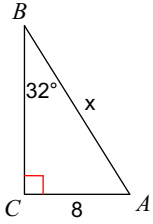


30) Find $\tan \theta$ if $\cos \theta = \frac{4}{5}$

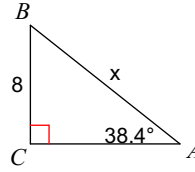
31) Find $\sin \theta$ if $\tan \theta = \frac{4}{3}$

Find the measure of each side indicated. Round to the nearest tenth.

32)

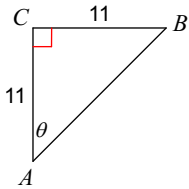


33)

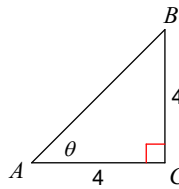


Find the measure of each angle indicated. Round to the nearest tenth.

34)

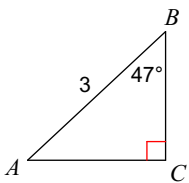


35)

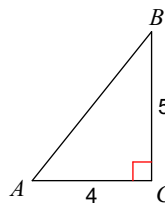


Solve each triangle. Round answers to the nearest tenth.

36)



37)

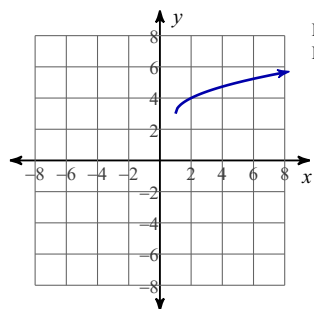


38) A ladder is leaning on a building. The base of the ladder is 10 feet from the building, and the ladder reaches up 15 feet on the building. How long is the ladder?

39) A handicap ramp must be built at a local business. Federal regulations require at most a 24° angle between the ramp and the ground. The ramp will need to reach 3 feet off the ground and will be 6 ft long. Will this ramp pass inspection?

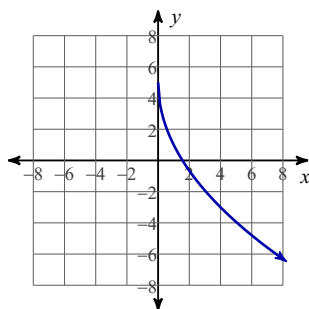
Answers to Chapter 10 Review (ID: 1)

1)



Domain: $x \geq 1$
Range: $y \geq 3$

3)



Domain: $x \geq 0$
Range: $y \leq 5$

5) $2|x| \cdot |y|\sqrt{5}$

7) $6\sqrt{2}$

9) $3\sqrt{2} - 2\sqrt{10}$

11) $44 - 2\sqrt{3}$

13) $\frac{10\sqrt{3}}{3x}$

15) $\frac{3\sqrt{2} - 4\sqrt{10}}{71}$

17) $-11\sqrt{3}$

19) $-11\sqrt{3} + 6\sqrt{6}$

21) $\{-4\}$

23) $\{9\}$

25) $\{10\}$

27) $\frac{5\sqrt{6}}{24}$

29) $\frac{9}{10}$

31) $\frac{4}{5}$

33) 12.9

35) 45°

37) $m\angle A = 51.3^\circ$, $m\angle B = 38.7^\circ$, $c = 6.4$

39) No, its angle of elevation is 30°