NAME _____ DATE _____ PERIOD _____

Chapter 10 Practice Test, Form 2D

1. Graph $y = \sqrt{x + 1} - 3$.
State the domain and range.

2. State the domain and range of $y = -2\sqrt{x + 2} - 1$.

Simplify each expression.

3. $\sqrt{40} \cdot \sqrt{5}$

4. $\sqrt{50x^3y^2}$

5. $\frac{28\sqrt{5} - 8\sqrt{5}}{2}$

6. $2\sqrt{24} + \sqrt{54} + 3\sqrt{150}$

7. $(\sqrt{11} - \sqrt{6})(\sqrt{2} + \sqrt{33})$

Solve each equation. Check your solution.

8. $\sqrt{7x - 3} = 5$

9. $\sqrt{\frac{4x}{3}} - 2 = 0$

10. $x + 3 = \sqrt{3x + 37}$

If *c* is the measure of the hypotenuse of a right triangle, find each missing measure. If necessary, round to the nearest hundredth.

11. $a = 4$, $b = 7$, $c = ?$

12. $b = 15$, $c = 17$, $a = ?$

Determine whether the following side measures form right triangles.

13. 15, 20, 25

14. 16, 20, 30

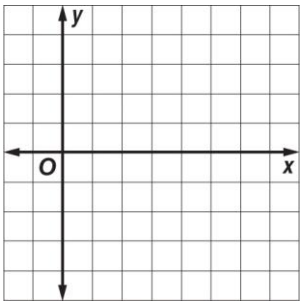
Use a calculator to find the value of each trigonometric ratio to the nearest ten-thousandth.

15. sin 73°

16. cos 62°

17. tan 12°

1.



2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

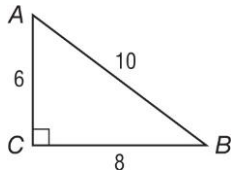
17. _____

NAME _____ DATE _____ PERIOD _____

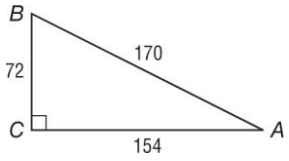
Chapter 10 Practice Test, Form 2D *(continued)*

For Questions 18 and 19, find the values of the three trigonometric ratios for angle *A*.

18.



19.



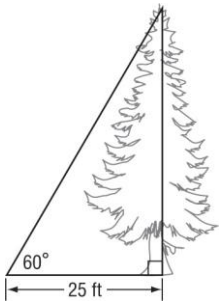
18. _____

19. _____

20. The perimeter of a square *P* with area *A* can be found using the formula $P = 4\sqrt{A}$. If a square has a perimeter of 36.8 inches, find the area to the nearest tenth of a square foot.

20. _____

21. Find the height of the tree to the nearest tenth of a foot.



21. _____

For Questions 22 and 23; round to the nearest hundredth.

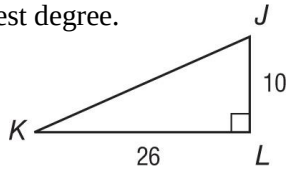
22. Mandy leaves her home for a walk. How far is she from her home after walking 2 miles due east and then 5 miles due south?

22. _____

23. What is the width of a rectangle if the length is 13 centimeters and the diagonal is 20 centimeters?

23. _____

24. Solve $m\angle J$ for the right triangle to the nearest degree.



24. _____

25. At a loading dock, a ramp is 80 feet long. The angle the ramp makes with the ground is 22°.Find the height reached by the ramp.

25. _____

Bonus Solve $12 + \sqrt{5x^2 + 36} = 12 - 3x$.

B. _____