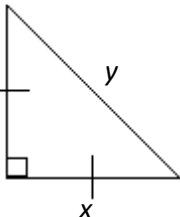
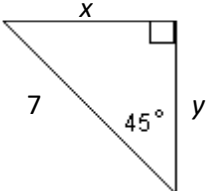


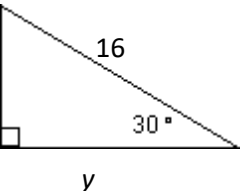
Chapter 8 Review Worksheet #2

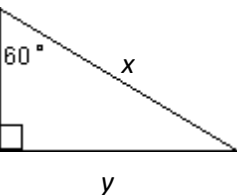
Name: _____

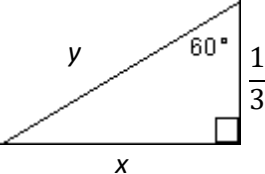
For # 1 – 14: Find the missing side/s. NO CALCULATOR!

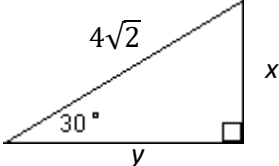
1.)  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

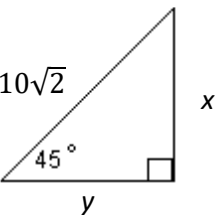
2.)  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

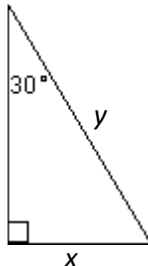
3.)  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

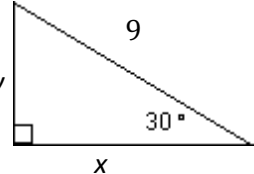
4.)  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

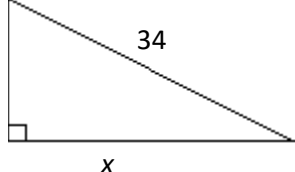
5.)  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

6.)  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

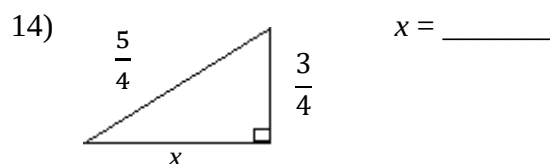
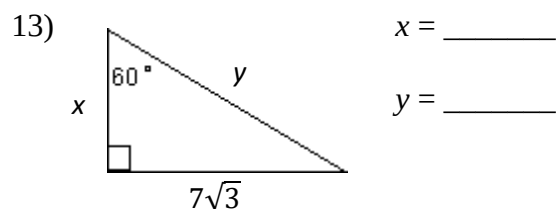
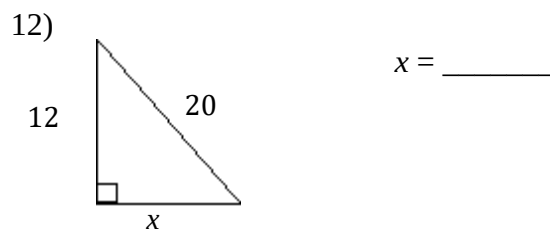
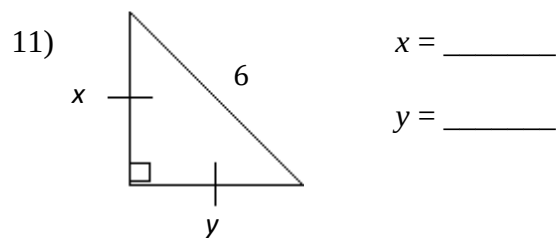
7.)  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

8.)  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

9.)  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

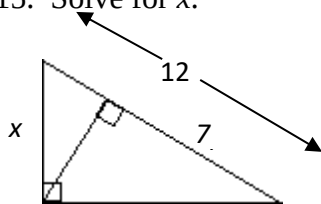
10.)  $x = \underline{\hspace{2cm}}$

Chapter 8 Review Worksheet #2

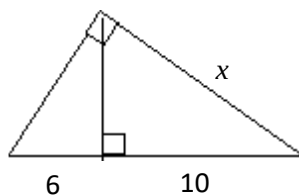


For #15 – 19: No calculators! If needed, leave answers in simplified radical form.

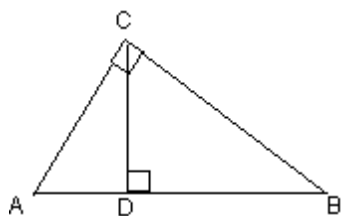
15. Solve for x .



16. Solve for x .

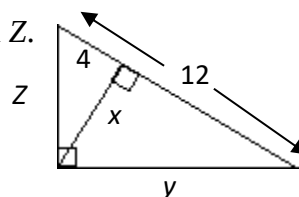


17. If $AC = 6$ and $AB = 9$, find CD . (Leave in radical form, if needed.)



18. A triangle has sides of 3, $5\sqrt{3}$, and 6. Classify the Triangle as acute, right, or obtuse.

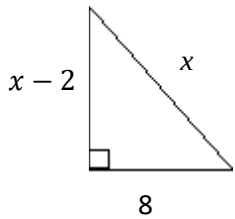
19. Find x , y , and Z .



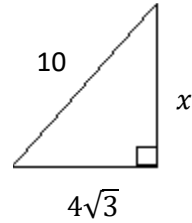
Chapter 8 Review Worksheet #2

For #20 – 25: NO calculators!

20. Solve for x .



21. Solve for x . If needed, leave your answer in radical form.



22. If Captain Jack Sparrows' treasure map reads that to find the treasure ye must walk 6 paces north from the stump, 20 paces west, 10 paces north, and 8 paces east. How far from the stump is the treasure? No calculator.

23. Classify a triangle with sides of length 5, $11\sqrt{2}$, and 15 as acute, right, or obtuse. No calculator.

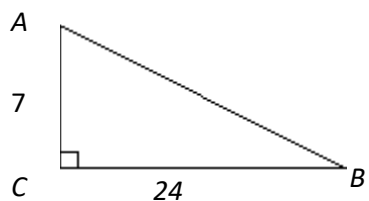
For #24-25, find the requested ratios. Write your answers as simplified ratios (in radical form, if needed.) No calculators!

24. Find $\sin 45^\circ$, $\cos 45^\circ$, and $\tan 45^\circ$.

25. Find $\sin 30^\circ$, $\cos 30^\circ$, and $\tan 30^\circ$.

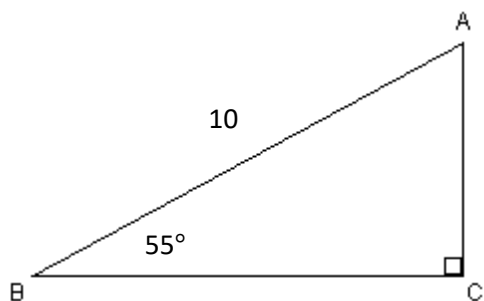
Chapter 8 Review Worksheet #2

26. Find the sine, cosine, and tangent for the acute angles in the following triangle. NO calculator!

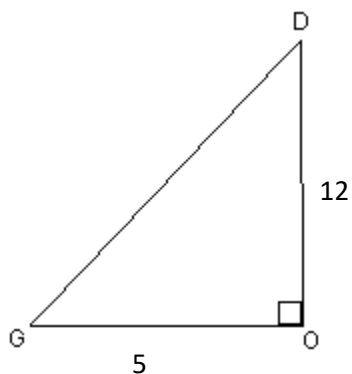


For #27 – 33: You may use a calculator. Round your answers to two decimal places.

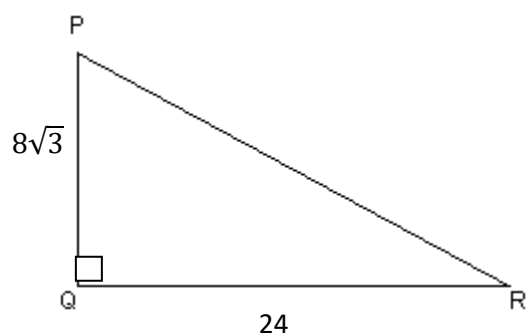
27. Solve the right triangle.



28. Solve the right triangle.



29. Solve the right triangle.

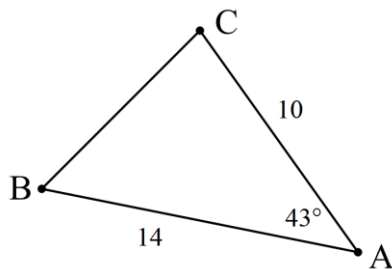


Chapter 8 Review Worksheet #2

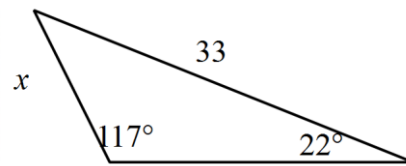
30. An observer on a cliff 1000m above sea level sights two ships due east. The angles of depression of the ships are 47° and 32° . Find the distance between the ships. Round your answer to 2 decimal places.

For #31 – 33, find the requested measures in the oblique (non-right) triangles. Round to 2 decimal places.

31. Find BC.



32. Find x .



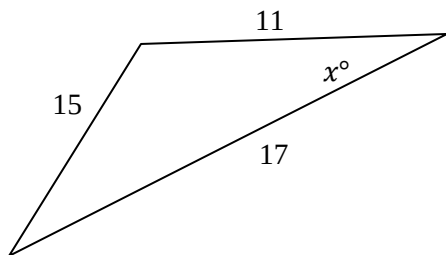
- 33) In triangle ABC, the measure of $\angle B$ is 90° , $BC = 16$, and $AC = 20$. Triangle DEF is similar to triangle ABC, where vertices D, E, and F correspond to vertices A, B, C respectively, and each side of triangle DEF is $\frac{1}{3}$ the length of the corresponding side of triangle ABC.

What is the value of $\sin F^\circ$?

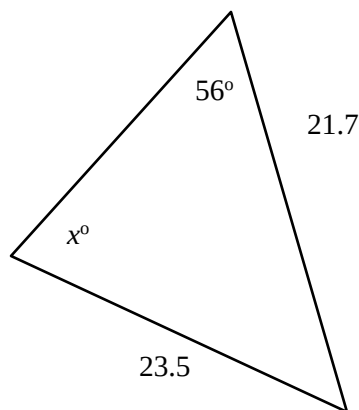
Chapter 8 Review Worksheet #2

For #34 – 35: Solve for the variable in each oblique triangle. Round to the nearest hundredth, if needed.

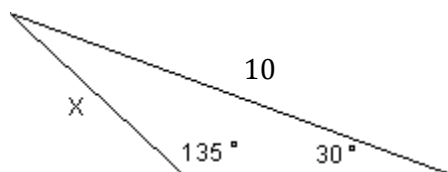
34)



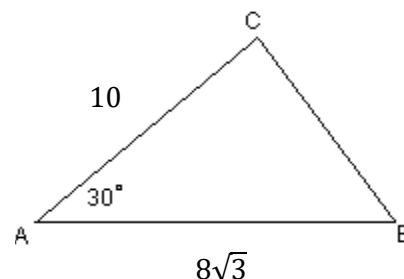
35)



36) Find x . No calculator!



37) Find BC . No calculator! $\angle C$ is NOT a right angle.



Answers:

- 1) $x = 8, y = 8\sqrt{2}$
- 2) $x = \frac{7\sqrt{2}}{2}; y = \frac{7\sqrt{2}}{2}$
- 3) $x = 8, y = 8\sqrt{3}$
- 4) $x = 10, y = 5\sqrt{3}$
- 5) $x = \frac{\sqrt{3}}{3}, y = \frac{2}{3}$
- 6) $x = 2\sqrt{2}; y = 2\sqrt{6}$
- 7) $x = y = 10$
- 8) $x = \sqrt{2}; y = 2\sqrt{2}$
- 9) $x = \frac{9\sqrt{3}}{2}; y = \frac{9}{2}$
- 10) $x = 30$
- 11) $x = y = 3\sqrt{2}$
- 12) $x = 16$
- 13) $x = 7, y = 14$
- 14) $x = 1$
- 15) $x = 2\sqrt{15}$
- 16) $x = 4\sqrt{10}$
- 17) $CD = 2\sqrt{5}$
- 18) *obtuse*
- 19) $x = 4\sqrt{2}; y = 4\sqrt{6}; z = 4\sqrt{3}$
- 20) $x = 17$
- 21) $x = 2\sqrt{13}$
- 22) 20 paces
- 23) *acute*
- 24) $\sin 45 = \cos 45 = \frac{\sqrt{2}}{2}; \tan 45 = 1$
- 25) $\sin 30 = \frac{1}{2}; \cos 30 = \frac{\sqrt{3}}{2}; \tan 30 = \frac{\sqrt{3}}{3}$
- 26) $\sin A = \frac{24}{25}; \cos A = \frac{7}{25}; \tan A = \frac{24}{7}$
 $\sin B = \frac{7}{25}; \cos B = \frac{24}{25}; \tan B = \frac{7}{24}$
- 27) $\angle A = 35; \angle B = 55, \angle C = 90, AC = 8.19, BC = 5.74, AB = 10$
- 28) $\angle G = 67.38; \angle D = 22.62; \angle O = 90; GO = 5; DO = 12; GD = 13$
- 29) $\angle P = 60; \angle R = 30; \angle Q = 90; QR = 24; PQ = 8\sqrt{3}; PR = 16\sqrt{3}$
- 30) 667.82 m
- 31) 9.55
- 32) 13.87
- 33) $\frac{3}{5}$
- 34) 60.35°
- 35) 49.95°
- 36) $5\sqrt{2}$
- 37) $2\sqrt{13}$