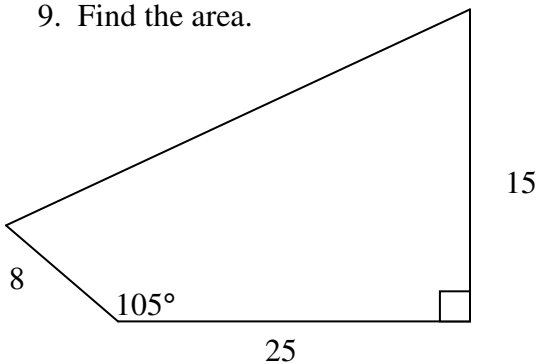


Chapter 9 Review B. Assignment # \_\_\_\_\_

You must do your work on a separate piece of paper.

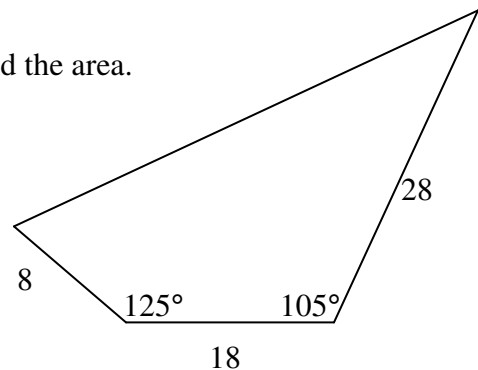
1. A ship travels 50 km on a bearing of  $027^\circ$ , and then travels on a bearing of  $127^\circ$  for 140 km. Find the distance between the starting point and the ending point. Round to the nearest km.  
(140km)
2. Two ships leave a port at the same time. The first ship sails on a bearing of  $40^\circ$  at 18 knots (nautical miles per hour) and the second at a bearing of  $140^\circ$  at 26 knots. How far apart are they after 1.5 hours? Round to the nearest nautical mile.  
(51 nautical mi)
3. A 6 ft man finds the angle of elevation to the top of a building to be  $50^\circ$ . Standing on a 5 ft ladder from the same spot, he finds the angle of elevation to the top of this building to be  $30^\circ$ . Find the height of the building to the nearest tenth. (15.7ft)
4. Francisco needs to know the height of a tree. From a given point on the ground, he finds that the angle of elevation to the top of the tree is  $36.7^\circ$ . He then moves back 50 ft. From the second point, the angle of elevation to the top of the tree is  $22.2^\circ$ . Find the height of the tree to the nearest feet. (45 ft)
5. If the area of  $\triangle ABC$  is  $21 \text{ cm}^2$ ,  $a = 5 \text{ cm}$  and  $b = 9 \text{ cm}$ , find measure(s)  $\angle C$  to the nearest degree. (Answer:  $69^\circ$ ;  $111^\circ$ )
6. Starting at a corner post, you walk S  $15^\circ$  W for 300 ft to a granite marker. You then continue at a bearing of S  $60^\circ$  W for 400 ft. You then return to your starting point. Draw the plot of land and find the area to the nearest square feet. (42,426 square feet)
7. Train A left the station at S  $52^\circ$ E at noon. Train B left the same station an hour later at N  $84^\circ$ E. If the speed of train A is 250mph and the speed of train B is 300 mph, to the nearest mile, how far apart are they at 4pm?  
(718 miles)
8. Plane A sights plane B on a compass bearing  $250^\circ$ . Make a sketch and give the compass bearing of plane A from plane B. ( $070^\circ$ ) REMEMBER 3 digits!!!

9. Find the area.



(299 unit square)

10. Find the area.



(388 unit square)

11. Find the measures of the angles of an isosceles triangle whose sides are 6, 6, and 8. ( $48.2^\circ$ ,  $48.2^\circ$ ,  $83.6^\circ$ )
12. Find the area and perimeter of a regular decagon inscribed in a circle with radius 10 cm. ( $293.9 \text{ cm}^2$ ; 61.8 cm)