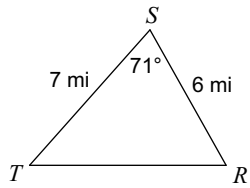


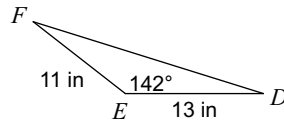
5.3 Area of any Triangle G.SRT.9H

Find the area of each triangle to the nearest tenth. Show all your work!

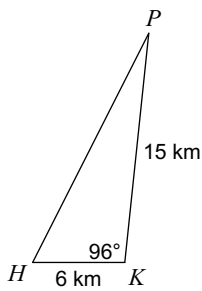
1)



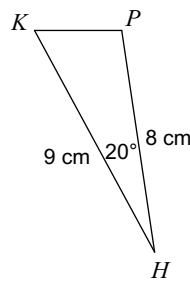
2)



3)



4)



Find the area of each triangle to the nearest tenth.

5) In $\triangle DEF$, $f = 4$ ft, $e = 12$ ft, $m\angle D = 97^\circ$

6) In $\triangle QRP$, $p = 8.4$ yd, $r = 7$ yd, $m\angle Q = 24^\circ$

7) In $\triangle CAB$, $m\angle C = 100^\circ$, $b = 7$ yd, $a = 14$ yd

8) In $\triangle RPQ$, $q = 8$ ft, $m\angle R = 40^\circ$, $p = 12$ ft

9) In $\triangle STR$, $m\angle S = 109^\circ$, $t = 16$ cm, $r = 8$ cm

10) In $\triangle STR$, $r = 4$ yd, $t = 5$ yd, $m\angle S = 75^\circ$

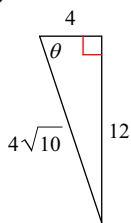
11) A surveyor wants to mark off a triangular parcel with an area of 1 acre (1 acre is equal to 43,560 square feet). One side of the triangle extends 220 feet along a straight road. A second side extends at an angle of 75 degrees from one end of the first side. How long should the second side be? (hint: draw a picture)

b. How long should the second side be if the triangular parcel has an area of 0.5 acres?

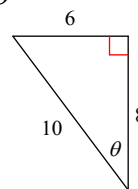
- 12) An alien made a crop triangle. The area of the crop triangle is 128 square miles. One angle is 76° . One side coming off this angle is 24 miles. Find the other side that comes off the angle. (hint: draw a picture)

Find the value of the trig function indicated. Leave as a ratio in simplest form.

13) $\csc \theta$



14) $\tan \theta$



Find the value of each. Round your answers to the nearest ten-thousandth.

15) $\sin 54^\circ$

16) $\cot 5^\circ$

Solve each equation by factoring.

17) $a^2 - a = 12$

18) $p^2 = 3p$