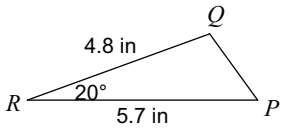
Precalculus Name_____

Area of Triangles

Find the area of each triangle to the nearest tenth.

1)



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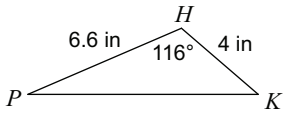

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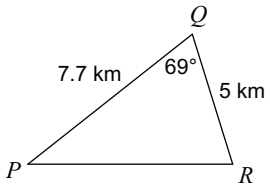

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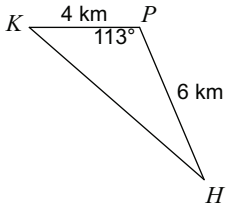

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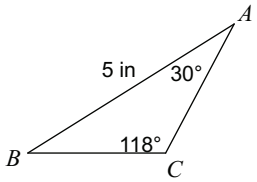

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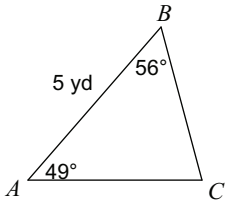

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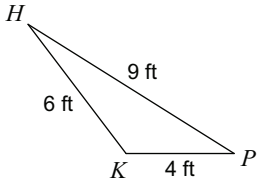

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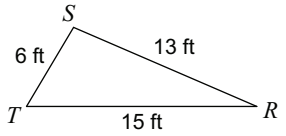


9) A triangular parcel of land has sides that measure 375 ft, 250 ft, and 300 ft. What is the area of the parcel? If an acre is 43, 560 square feet, how many acres of land is the parcel?

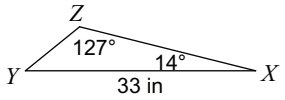
10) The Pyramid Hotel is planning on repainting the exterior of the building. The building has four sides that are isosceles triangles with bases measuring 590 ft and legs measuring 375 ft. If one gallon of paint covers 25 square feet, how many gallons of paint are needed?

11) A handyman is installing a tile floor in a kitchen. Since the corners of the kitchen are not exactly square, he needs to have special triangular shaped tile made for the corners. One side of the tile needs to be 11.3", the second side needs to be 11.9",and the third side is 13.6". If the tile costs $4.89 per square foot, and he needs four of them, how much will it cost to have the tiles made?

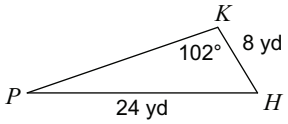
12) A contractor needs to replace a triangular section of roof on the front of a house. The sides of the triangle are 8.2 feet, 14.6 feet, and 16.3 feet. If one bundle of shingles covers 33.33 square feet and costs $15.45, how many bundles does he need to purchase? How much will the shingles cost him? How much of the bundle will go to waste?

Find each measurement indicated. Round your answers to the nearest tenth.

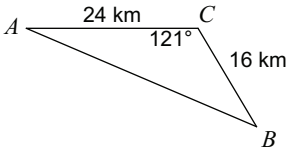
13) Find YZ



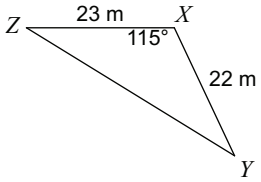
14) Find $m\angle P$



15) Find AB

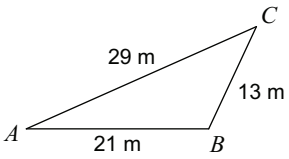


16) Find $m\angle Y$



Solve each triangle. Round your answers to the nearest tenth.

17)



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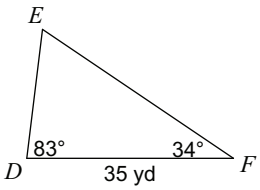

REVIEW: Factor each completely.

19) $5b^2 + 42b + 16$

20) $5x^2 + 44x - 60$

21) $5x^2 + 8x - 21$

22) $2b^2 + 3b - 54$

23) $25x^2 - 16$

24) $49n^2 - 100$

25) $9a^2 - 64$

26) $36b^2 - 1$

Divide:

27) $(v^3 - 7v^2 - 6v - 6) \div (v + 1)$

Divide.

28) $(n^3 + 2n^2 - 2n) \div (n + 2)$

Solve each equation with the quadratic formula.

29) $4k^2 = -6k + 22$

30) $3x^2 - 10x = -11$