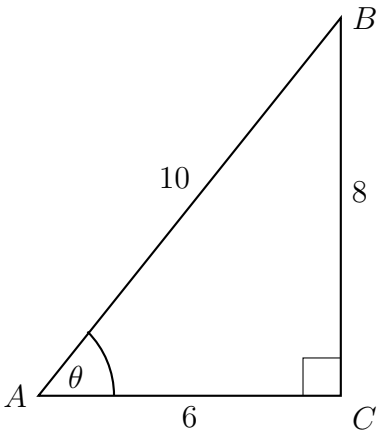
Unit 12 IB Trigonometry Name:
27 May 2022

12.5 End of Unit Test **HSG.SRT.D.11**

1. Right triangle $\triangle ABC$ is shown with side lengths marked.



   (a) Which length is the hypotenuse?

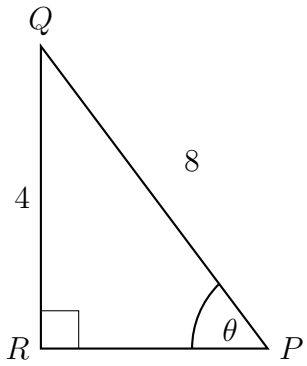
   (b) Which length is *opposite* angle A?

   (c) Which length is *adjacent* to angle A?

   (d) What is the area of the triangle?

   (e) What fraction describes $\cos\theta$?

2. Right triangle $\triangle PQR$ is shown with side lengths marked.



   (a) Calculate the length PR.

   (b) What fraction is $\sin\theta$?

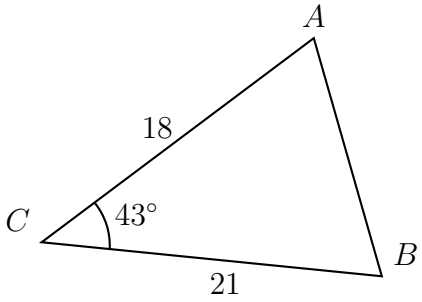
   (c) What fraction is $\cos\theta$?

   (d) What fraction is $\tan\theta$?

   (e) Which function of θ is $\frac{4}{8}$?
   (tan, sin, or cos)

   (f) What is the area of the triangle?

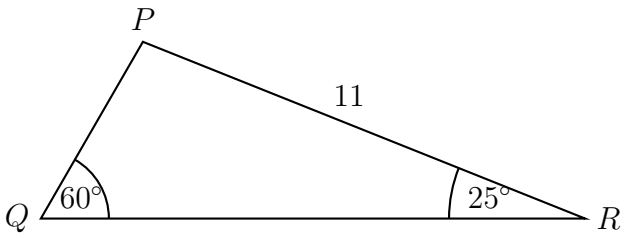
3. Find the area of the given triangle.



4. The following diagram shows triangle PQR, with $P\hat{Q}R = 60°$, $P\hat{R}Q = 25°$, and $PR = 11$.

   Find PQ.

   diagram not to scale



5. The following diagram shows triangle DEF, with $DE = 7$, $D\hat{E}F = 53°$, and $EF = 11$.
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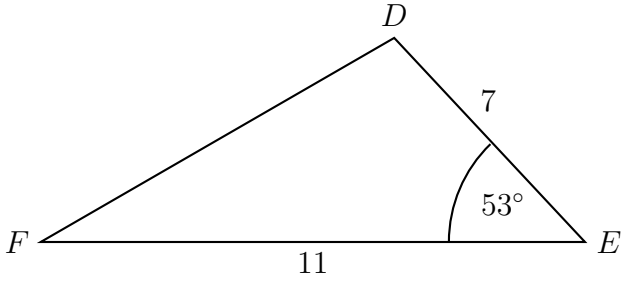
   diagram not to scale

   (a) Find DF.

   (b) What is the area of the triangle?



6. Triangle ABC has side lengths $AB = 13.2$ and $AC = 5.6$, while $A\hat{B}C = 30°$.

   diagram not to scale

   (a) Find $\sin C$.

   (b) Find $\angle C$.