Fifth set of Homework

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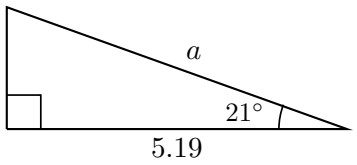
Due: Wednesday, February 23

Please note: You should fully justify your answers.

1 Trigonometric ratios

For the following homework you should use your calculator when appropriate. You should **not** use the calculator for trigonometric ratios of known angles (30°, 45°, 60°) but use the exact values instead. In inexact calculations round to the the second decimal point.

1. In a right triangle KLM with $K = 90°$ have that $M = 22°$, and $k = 3$. Find the lengths of l, m.
2. Solve the triangle ABC where $A = 90°$, $B = 33°$, and $b = 2.5$
3. In the following figure find a:



4. In a right triangle ABC with $A = 90°$ we have $a = 2$ and $b = 1$. Find the angle B.
5. In a right triangle ABC with $B = 90°$ we have that $a = 2.1$, and $b = 3$. Find the angle C.
6. In a right triangle PQR we have $P = 90°$, $r = 5$ and $q = 6$. Solve the triangle.
7. In a triangle with $A = 90°$ and $\cos B = .32$ find $\sin B$.
8. For an acute angle θ of a right triangle we have $\sin\theta = \dfrac{\sqrt{5}}{3}$. Find $\cos\theta$ and $\tan\theta$.
9. The acute angles of a right triangle are ϕ and θ. If $\tan\theta = 4.3$ find $\cos\phi$.