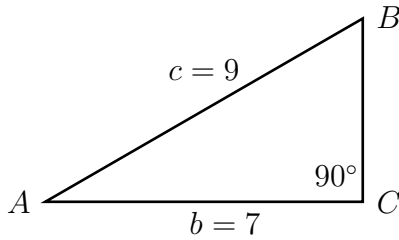


Math 06, Trigonometry Test I

10:00 - 10:45

These ten questions are worth 5 points each. To get all 5 points it is very important that you show clearly all your working out and reasoning. Put a box around the answer.

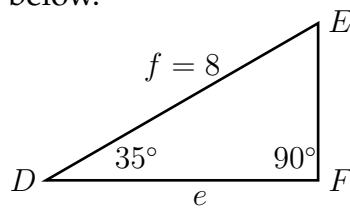
Q1. Let $\triangle ABC$ have $\angle C = 90^\circ$ and lengths $c = 9$, $b = 7$ as shown in the figure below. Compute: $\sin A$



Q2. Calculate the size of $\angle A$ in Q1 to the nearest degree.

Q3. Give the exact value of: $\cos(45^\circ)$

Q4. Find the length of side e below.



Q5. The angle of elevation of the top of a fir tree is 41° from an observation point 65 feet from the base of the tree. Find the height of the tree.

Q6. A 7-foot wall makes a shadow which is 2 feet wide. Find the angle of elevation of the sun.

Q7. Sketch the angle $\theta = -140^\circ$ in standard position and name the quadrant in which the terminal side lies.

Q8. Find with a calculator, correct to 4 decimal places: $\sin(-845^\circ)$

Q9. If θ is in standard position with $\cos \theta = 4/9$ and the terminal side is in quadrant IV, find: $\tan \theta$

Q10. Give the exact value for: $\cos 150^\circ$