Trigonometry of Right Angle Triangles – SOH

Solve for the desired angle of the right angle triangle, round to the nearest degree.

1. \[ \sin \theta = \frac{8}{12} \]
   \[ \theta = \sin^{-1} \left( \frac{8}{12} \right) \]
   \[ \theta = 41.8^\circ \]

2. \[ \sin \theta = \frac{7}{11} \]
   \[ \theta = \sin^{-1} \left( \frac{7}{11} \right) \]
   \[ \theta = 37.5^\circ \]

3. \[ \sin \theta = \frac{1}{2} \]
   \[ \theta = \sin^{-1} \left( \frac{1}{2} \right) \]
   \[ \theta = 30^\circ \]

4. \[ \sin \theta = \frac{11}{13} \]
   \[ \theta = \sin^{-1} \left( \frac{11}{13} \right) \]
   \[ \theta = 57.8^\circ \]

5. \[ \sin \theta = \frac{35}{42} \]
   \[ \theta = \sin^{-1} \left( \frac{35}{42} \right) \]
   \[ \theta = 56.4^\circ \]

Triangles not to scale, trust the math

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