Practice worksheet | Pythagoras and Trigonometry

Similarity and fixed trigonometric ratios

Name: _____ Date: _____

6 questions | 14 marks

1. Compare $\frac{\text{opposite}}{\text{adjacent}}$ for side pairs $(3, 4)$ and $(9, 12)$. [2 marks]

2. Show that $\frac{\text{opposite}}{\text{hypotenuse}}$ ratios $\frac{5}{13}$ and $\frac{15}{39}$ agree. [2 marks]

3. $\frac{\text{Adjacent}}{\text{hypotenuse}} = \frac{4}{5}$. Find adjacent when hypotenuse $= 30$ cm. [2 marks]

4. $\frac{\text{Opposite}}{\text{adjacent}} = \frac{3}{4}$. Find opposite when adjacent $= 20$ m. [2 marks]

5. Corresponding legs are 3,4 in one triangle and 6,4 in another. Are they similar? [3 marks]

6. Three $\frac{\text{opposite}}{\text{adjacent}}$ pairs are $(6, 8)$, $(12, 16)$ and $(18, 24)$. State the common ratio and explain. [3 marks]