

# Trigonometry Ratios Assessment

## ACMMG223 – Using ratios and similarity



Name: \_\_\_\_\_



Assessment



TI-Navigator



Student



30 min

Score: \_\_\_\_\_

Teacher: \_\_\_\_\_

Q.1. Which of the following represents the **sine** ratio?

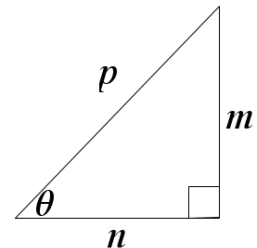
- a)  $\frac{opp}{hyp}$       b)  $\frac{adj}{hyp}$       c)  $\frac{opp}{adj}$       d)  $\frac{hyp}{adj}$       e)  $\frac{adj}{opp}$

Q.2. Which of the following represents the **cosine** ratio?

- a)  $\frac{opp}{hyp}$       b)  $\frac{adj}{hyp}$       c)  $\frac{opp}{adj}$       d)  $\frac{hyp}{adj}$       e)  $\frac{adj}{opp}$

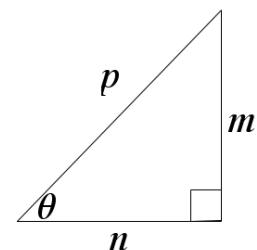
Q.3. Which of the following is true for angle  $\theta$  ?

- a)  $\sin(\theta) = \frac{m}{n}$       b)  $\sin(\theta) = \frac{p}{n}$       c)  $\sin(\theta) = \frac{p}{m}$   
d)  $\sin(\theta) = \frac{m}{p}$       e)  $\sin(\theta) = \frac{n}{p}$



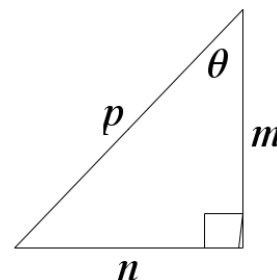
Q.4. Which of the following is true for angle  $\theta$  ?

- a)  $\cos(\theta) = \frac{m}{n}$       b)  $\cos(\theta) = \frac{p}{n}$       c)  $\cos(\theta) = \frac{p}{m}$   
d)  $\cos(\theta) = \frac{m}{p}$       e)  $\cos(\theta) = \frac{n}{p}$



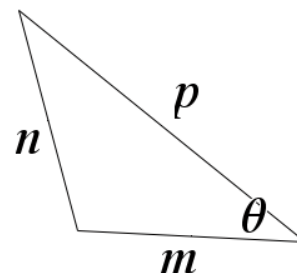
Q.5. Which of the following is true for angle  $\theta$ ?

- a)  $\tan(\theta) = \frac{m}{n}$     b)  $\tan(\theta) = \frac{n}{p}$     c)  $\tan(\theta) = \frac{p}{m}$   
 d)  $\tan(\theta) = \frac{m}{p}$     e)  $\tan(\theta) = \frac{n}{m}$



Q.6. Which of the following is true for angle  $\theta$ ?

- a)  $\tan(\theta) = \frac{m}{n}$     b)  $\tan(\theta) = \frac{n}{p}$     c)  $\tan(\theta) = \frac{p}{m}$   
 d)  $\tan(\theta) = \frac{m}{p}$     e) None of these



Q.7. A right angled triangle has sides  $a$ ,  $b$  and  $c$ . If  $\tan^{-1}\left(\frac{a}{b}\right) = 60^\circ$  then the sides lengths from smallest to largest would be:

- a)  $a, b, c$     b)  $b, a, c$     c)  $a, c, b$     d)  $b, c, a$     e)  $c, a, b$

Q.8. For a given right angled triangle:  $\sin(\theta) = 0.3$ . The triangle is then enlarged by a factor of 2. Which statement is true for the new triangle?

- a)  $\sin(\theta) = 0.15$     b)  $\sin(\theta) = 0.3$     c)  $\sin(\theta) = 0.6$     d)  $\sin(\theta) = 1.2$     e) None of these

Q.9. For a given right angled triangle:  $\sin(\theta) = 0.3$ . The **angle**  $\theta$  is doubled. Which statement is true for the new triangle?

- a)  $\sin(\theta) = 0.15$     b)  $\sin(\theta) = 0.3$     c)  $\sin(\theta) = 0.6$     d)  $\sin(\theta) = 1.2$     e) None of these

Q.10. A right angled triangle has sides  $a$ ,  $b$  and  $c$ . If  $\tan^{-1}\left(\frac{a}{b}\right) = 30^\circ$ , which of the following would produce the smallest value:

- a)  $\frac{a}{b}$     b)  $\frac{b}{a}$     c)  $\frac{a}{c}$     d)  $\frac{b}{c}$     e)  $\frac{c}{b}$