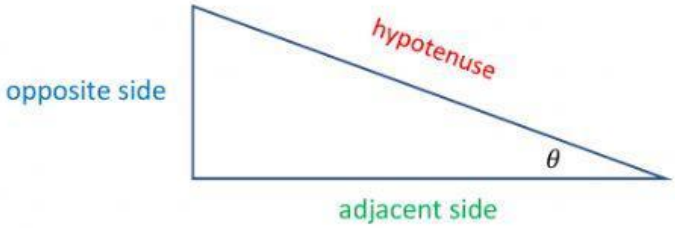
Assumption College Ubonratchathani

English for Math 3

Name:..... Class:..... No. .....

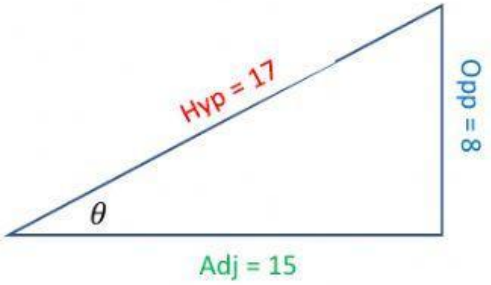
Trigonometric Ratios
(อัตราส่วนตรีโกณมิติ)



SOH – CAH – TOA

1. $\sin\theta = \frac{opp}{hyp}$
2. $\cos\theta = \frac{adj}{hyp}$
3. $\tan\theta = \frac{opp}{adj}$

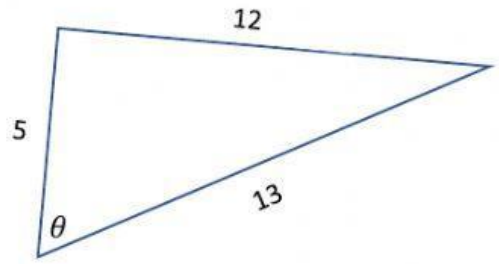
Example 1: Find the sin θ, cos θ and tan θ of the triangle below.



Solution:

$\sin\theta = \frac{opp}{hyp} = \frac{8}{17}$ $\cos\theta = \frac{adj}{hyp} = \frac{15}{17}$ $\tan\theta = \frac{opp}{adj} = \frac{8}{15}$

Example 2: Find the sin θ, cos θ and tan θ of the triangle below.

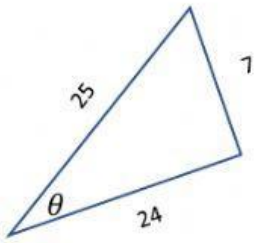


Solution:

$$\sin\theta = \frac{opp}{hyp} = \frac{12}{13} \qquad \cos\theta = \frac{adj}{hyp} = \frac{5}{13} \qquad \tan\theta = \frac{opp}{adj} = \frac{12}{5}$$

Find the correct sin θ, cos θ and tan θ of the following triangles:

A.



1. sin θ

a. $\frac{7}{24}$ b. $\frac{7}{25}$ c. $\frac{24}{25}$

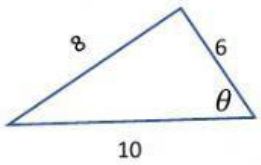
2. cos θ

a. $\frac{7}{24}$ b. $\frac{7}{25}$ c. $\frac{24}{25}$

3. tan θ

a. $\frac{7}{24}$ b. $\frac{7}{25}$ c. $\frac{24}{25}$

B.



4. sin θ

a. $\frac{4}{5}$ b. $\frac{3}{5}$ c. $\frac{4}{3}$

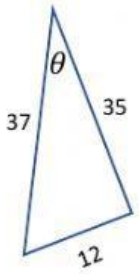
5. cos θ

a. $\frac{3}{5}$ b. $\frac{4}{3}$ c. $\frac{4}{5}$

6. tan θ

a. $\frac{4}{5}$ b. $\frac{4}{3}$ c. $\frac{3}{5}$

C.



7. sin θ

a. $\frac{12}{35}$ b. $\frac{35}{37}$ c. $\frac{12}{37}$

8. cos θ

a. $\frac{35}{37}$ b. $\frac{12}{35}$ c. $\frac{12}{37}$

9. tan θ

a. $\frac{12}{37}$ b. $\frac{12}{35}$ c. $\frac{35}{37}$