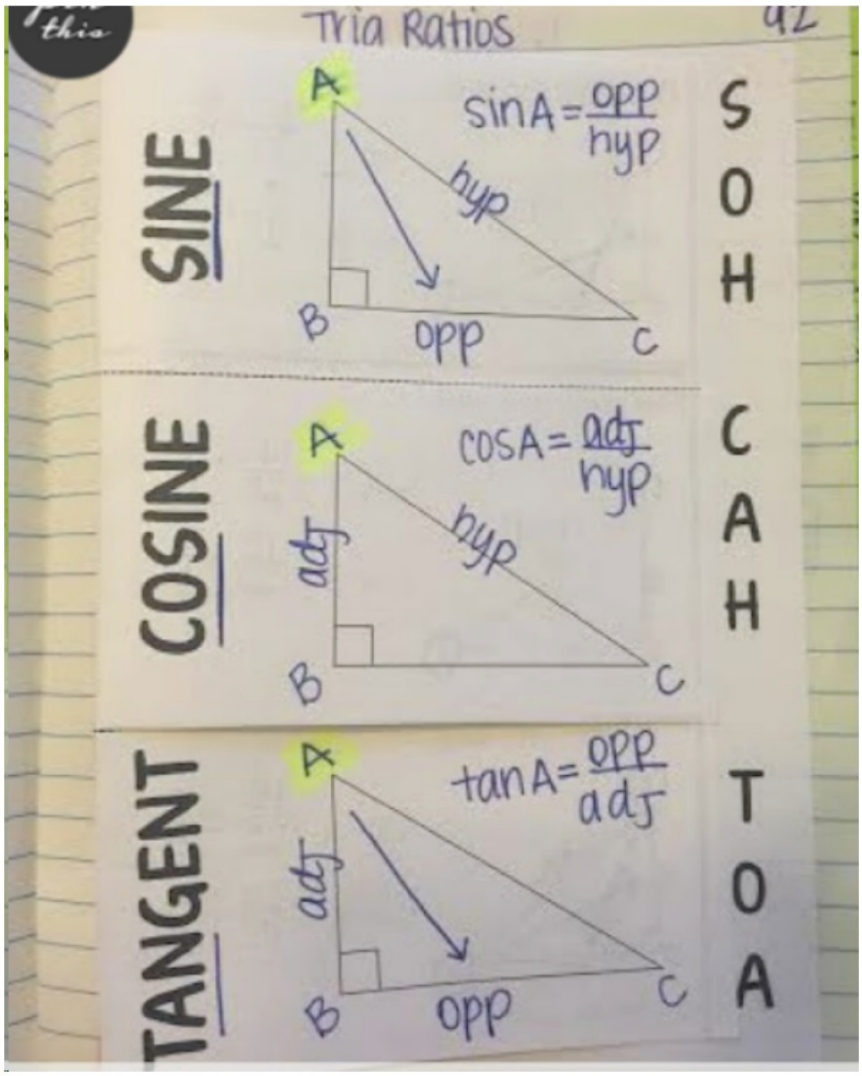
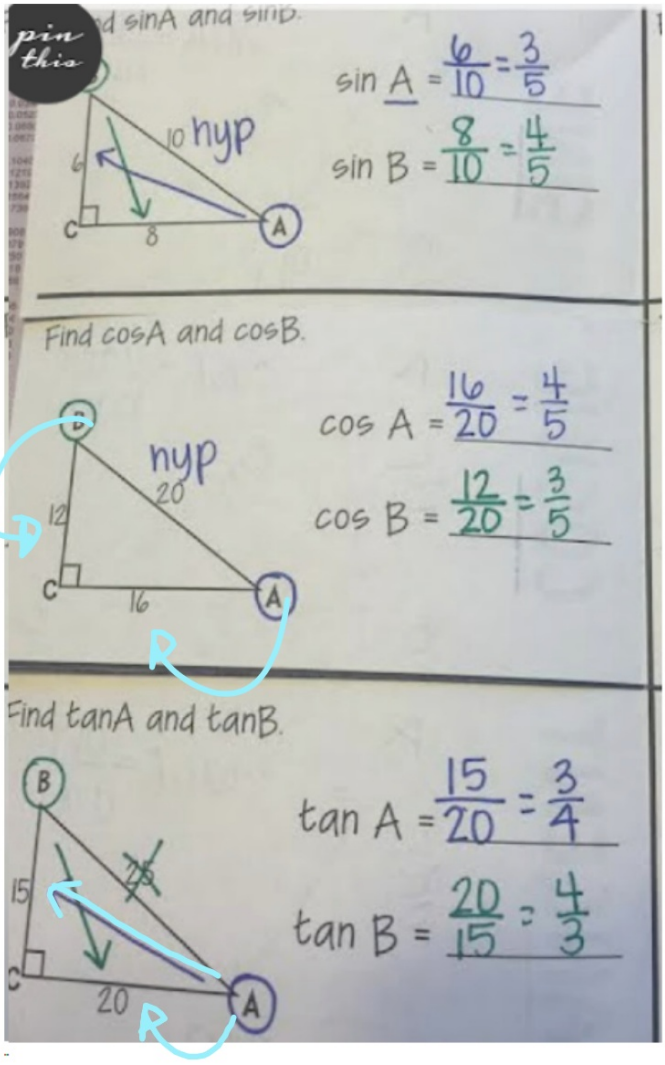
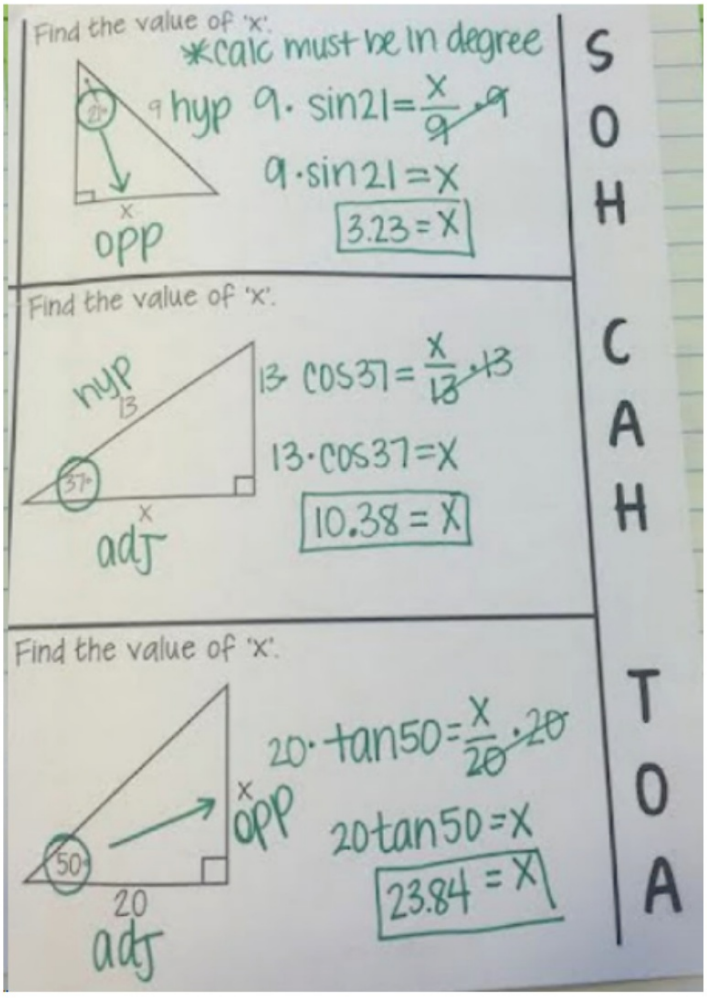

Tria Ratios
42
SINE
sinA = opp/hyp
hyp
opp
A
B
C
SOH
COSINE
cosA = adj/hyp
adj
hyp
CAH
TANGENT
tanA = opp/adj
adj
opp
TOA


pin this
d sinA and sinB.
sin A = 6/10 = 3/5
sin B = 8/10 = 4/5
10 hyp
6
8
C
A
Find cosA and cosB.
cos A = 16/20 = 4/5
cos B = 12/20 = 3/5
hyp
20
12
16
Find tanA and tanB.
tan A = 15/20 = 3/4
tan B = 20/15 = 4/3
B
15
20
20

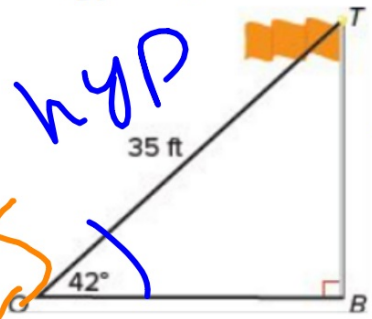
CAH

TOA


Find the value of 'x'.
*calc must be in degree
21°
9 hyp
x
opp
9 · sin21 = x/9 · 9
9 · sin21 = x
3.23 = x
Find the value of 'x'.
hyp
13
37°
x
adj
13 cos37 = x/13 · 13
13 · cos37 = x
10.38 = x
Find the value of 'x'.
50°
20
adj
x
opp
20 · tan50 = x/20 · 20
20 tan50 = x
23.84 = x
SOH CAH TOA

Solve. Round answers to the nearest tenth.

1. Find the height of the flagpole, *TB*.



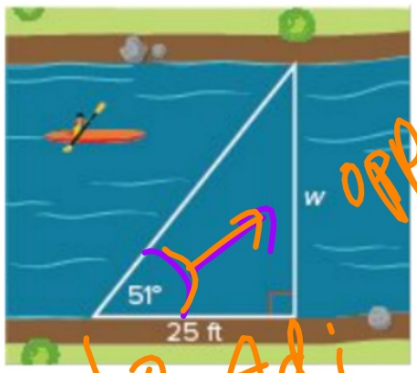
hyp

x opp

$\sin 42 = \frac{x}{35}$

$x = 23.4$

2. Find the width of the river, *w*.



opp

Adj

$\tan 51 = \frac{w}{25}$

$w = 30.9$

Solve. Round answers to the nearest tenth.

3. What is the distance between the two people on opposite sides of the river?

hyp 41.9 opp

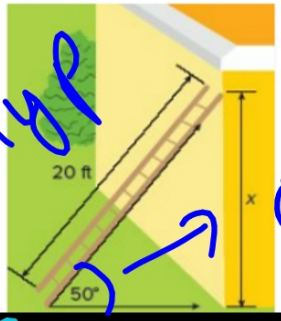
$\sin 62 = \frac{37}{d}$

$d(\sin 62) = 37$

$\frac{d(\sin 62)}{(\sin 62)} = \frac{37}{(\sin 62)}$

$d = 41.9$

4. A 20-foot ladder leaning against a wall makes a 50° angle between the ground and the ladder. How far up the wall does the ladder go?



hyp 20 opp 15.3

$\sin 50 = \frac{x}{20}$

$20(\sin 50) = x$

$15.3 = x$