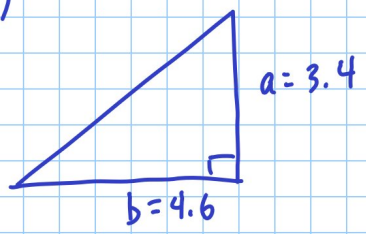
WARMUP

What method would you use to solve each triangle?

1)



SOH CAH TOA

OR

Law of sines

2) $a = 3.5$ $b = 6.3$ $c = 7.1$

Law of Cosines

3) $a = 5.3$ $c = 7.5$ $\beta = 63°$

Law of Cosines

4) $\alpha = 38°$ $\beta = 65°$ $b = 6.3$

Law of Sines

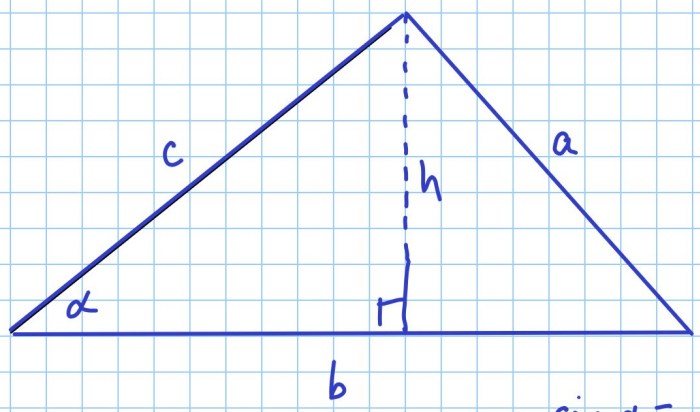
Today 7.4

Tomorrow Work on prac. test

Wed. go over prac test and give PPP

thurs. go over PPP

Fri. Ch 7 test



$A = \frac{1}{2}bh$

$A = \frac{1}{2}bc\sin\alpha$

$A = \frac{1}{2}ac\sin\beta$

$A = \frac{1}{2}ab\sin\gamma$

$\sin\alpha = \frac{h}{c}$

$c\sin\alpha = h$

ex: Find area if $a = 8$, $b = 6$, $\gamma = 30^\circ$

$$A = \frac{1}{2}ab\sin\gamma$$

$$A = \frac{1}{2} \cdot 8 \cdot 6 \cdot \sin 30^\circ$$

$$A = 12$$

Heron's Formula → use if SSS

$$A = \sqrt{s(s-a)(s-b)(s-c)}$$

where $s = \frac{1}{2}(a+b+c)$

ex: $a = 4$, $b = 5$, $c = 7$

$$s = \frac{1}{2}(4+5+7) = 8$$

$$A = \sqrt{8(8-4)(8-5)(8-7)}$$

$$A = \sqrt{8 \cdot 4 \cdot 3 \cdot 1}$$

$$A = \sqrt{96} \approx 9.8$$

p561

3, 7, 11, 23, 27