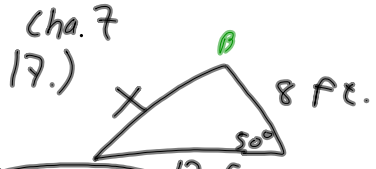
Cha. 7

17.)



Law of sines

$$\frac{\sin A}{a} = \frac{\sin B}{b}$$

$$a^2 = b^2 + c^2 - 2bc\cos A$$

Law of cosines

$a^2 = 8^2 + 12^2 - 2(8)(12)\cos 50°$

$a^2 = 64 + 144 - 192\cos 50°$

$a^2 = 208 - 123.4152211$

$a^2 = \sqrt{84.58477}$

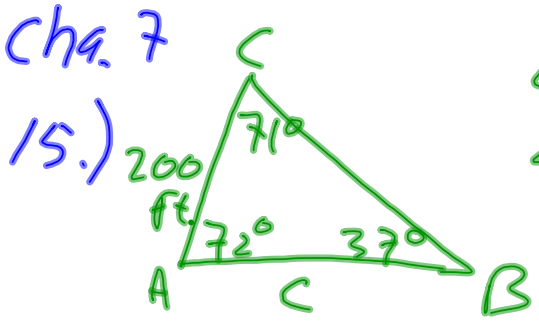
$a = 9.19699$

$a = 9.2$ ft

B

Cha. 7

15.)



$\angle C = 180 - (72 + 37)$

$\angle C = 71°$

$$\frac{\sin 71°}{c} \times \frac{\sin 37°}{200}$$

$$\frac{c \sin 37°}{\sin 37} = \frac{200 \sin 71°}{\sin 37}$$

$C = 314.2223.$

Cha. 9

30.) $\overrightarrow{AB}$ $A(2,3)$ $B(-4,6)$

$\overrightarrow{AB} = \langle -4-2, 6-3 \rangle$

$= \langle -6, 3 \rangle$

C

Cha. 9

31.) $\overrightarrow{AB} = \langle -1-3, 7-4 \rangle$

$= \langle -4, 3 \rangle$

$\|\overrightarrow{AB}\| = \sqrt{(-4)^2 + (3)^2}$

$= \sqrt{16+9}$

$= \sqrt{25} = 5$

B

cha. 10

40.) $(x+3)^2+(y-7)^2=289$

r^2

$(x-h)^2+(y-k)^2=r^2$

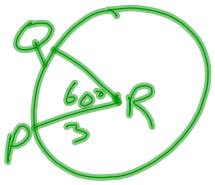
$r^2=289$

$r=17$

B

cha. 10

39.)



$N=60°$

$r=3$

$\frac{N}{360}\cdot 2\pi r=\frac{60}{360}\cdot 2\pi(3)$

$=\frac{1}{6}\cdot 6\pi$

$=\pi$

≈ 3.14

C