Review for Test - Lots of Practice from the Textbook!!!

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Thurs Test?!

Practice Questions...   *Bearing #11, 12*   Page 129 #1 - 9 ⎤ Chp 3
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Practice Tests...   *Bearing #8*   Page 152 #1 - 8   Chp. 3
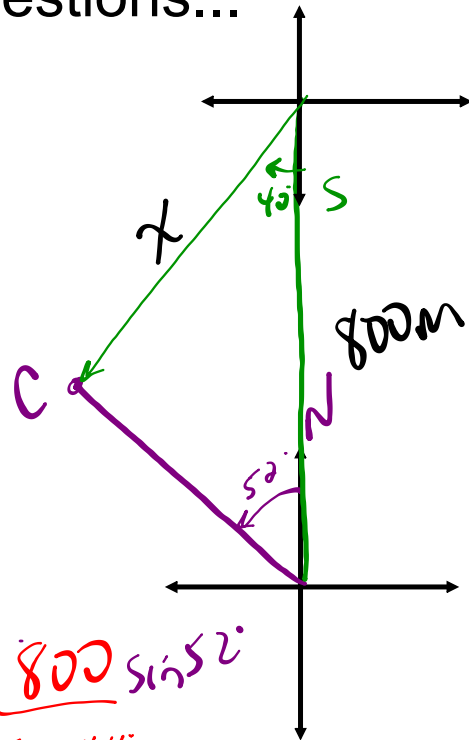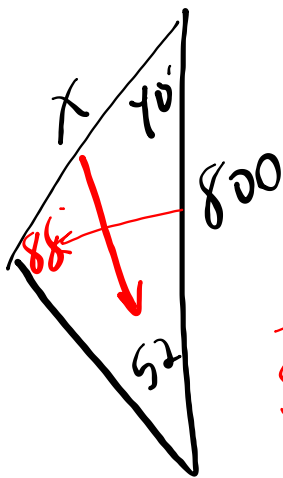   Page 198 #1 - 7   Chp. 4

P.129

Review questions...

8. As Chloe and Ivan are paddling north on Lac La Ronge in Saskatchewan, they notice a campsite ahead, at N52°W. They continue paddling north for 800 m, which takes them past the campsite. The campsite is then at S40°W. How far away, to the nearest metre, is the campsite from their position at the second sighting?
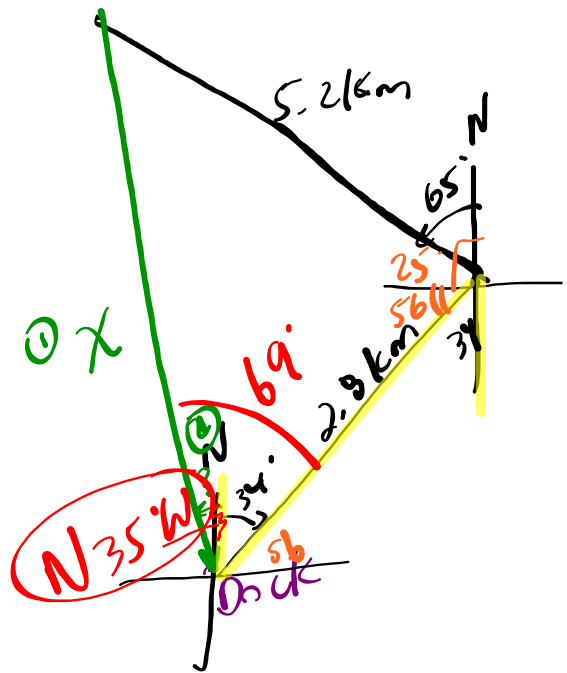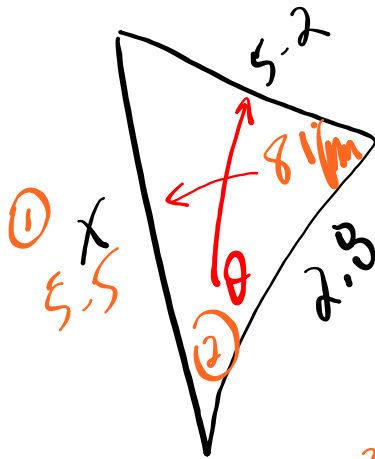
$$\frac{x}{\sin 52°} = \frac{800 \sin 52°}{\sin 88°}$$

$$x = 630.8 m$$

P.154 #12

12. A canoeist starts from a dock and paddles
2.8 km N34°E. Then she paddles 5.2 km N65°W.
What distance, and in which direction, should a
second canoeist paddle to reach the same location
directly, starting from the same dock? Round all
answers to the nearest tenth of a unit.

5.2 km

65° N

25

56°

2.8 km

34

① X

69°

θ

N 35°W

34°

Dock

56°

5.2

8 km

① X

5.5

θ

2.3

① $x^2 = 2.8^2 + 5.2^2 - 2(2.8)(5.2)\cos 81°$

$x^2 =$

$x^2 =$

$x =$

$x =$

```
2.8²+5.2²-2*2.8*
5.2*cos(81)
          30.32462838
√(Ans
          5.506780219
```

$x = 5.5 \text{ km}$

② $\dfrac{\sin \theta}{5.2} = \dfrac{\sin 81°}{5.5}$

$\sin^{-1} \sin \theta = \sin^{-1} 0.9338$

$\theta = 69°$

P. 152 #3, 4, 6

③ $x^2 = 70^2 + 100^2 - 2(70)(100)\cos 85$

$x^2 = $
```
70²+100²-2*70*10
0*cos(85)
          13679.8196
√(Ans
          116.9607609
```
$x = $ **X = 117 km**

3. The radar screen of a Coast Guard rescue ship shows that two boats are in the area, as shown in the diagram. How far apart are the two boats, to the nearest tenth of a kilometre?
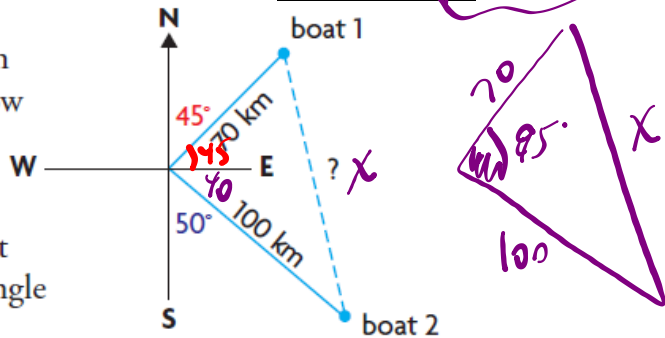
4. A parallelogram has adjacent sides that are 11.0 cm and 15.0 cm long. The angle between these sides is 50°. Determine the length of the shorter diagonal to the nearest tenth of a centimetre.
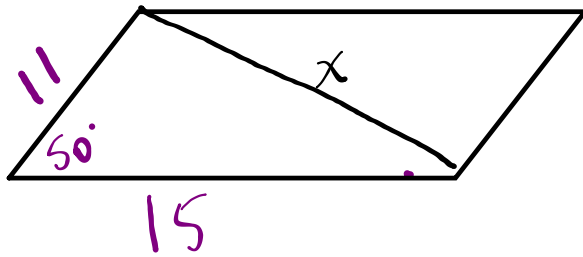
$x^2 = 11^2 + 15^2 - 2(11)(15)\cos 50°$

$x^2 = $
```
11²+15²-2*11*15*
cos(50)
          133.8800888
√(Ans
          11.57065637
```
$x = $ **X = 11.6 cm**

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

6. Terry is designing a triangular patio, as shown. Determine the area of the patio to the nearest tenth of a square metre.

① $\cos\theta = \dfrac{9^2 + 8.5^2 - 7.1^2}{2(9)(8.5)}$

$\cos^{-1}\cos\theta = \cos^{-1}\left(\dfrac{102.84}{153}\right)$

$\theta = 48°$

③ A triangle $= \dfrac{bh}{2}$

② $\sin 48° = \dfrac{h}{9}$

$6.7 = h$

③ $A = \dfrac{8.5(6.7)}{2}$

A = 28.4 m²