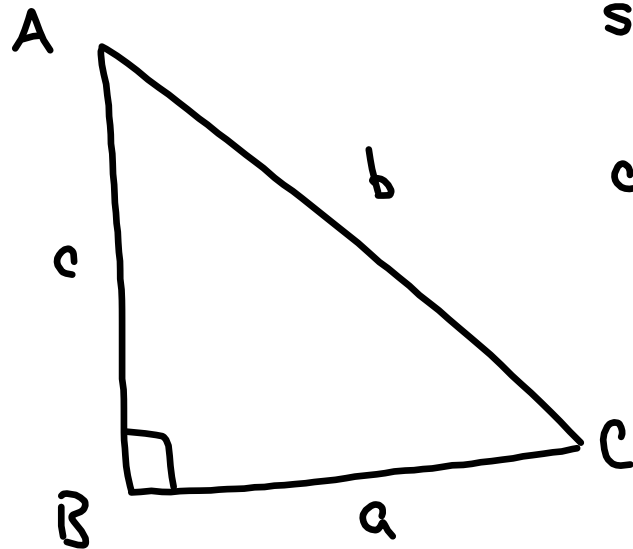# Section 8.4 Trigonometry

Obj: express trig ratios as fractions or decimals

recognize trig relationships from right triangles

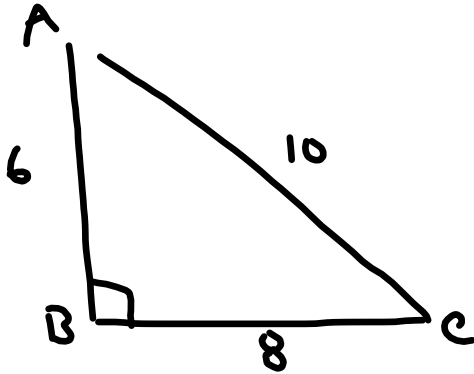use a calculator to find values of trig ratios or measures of angles

$$\sin A = \frac{\text{side opposite angle } A}{\text{hypotenuse}} = \frac{a}{b}$$

$$\cos A = \frac{\text{side adjacent angle } A}{\text{hypotenuse}} = \frac{c}{b}$$

$$\tan A = \frac{\text{side opposite angle } A}{\text{side adjacent angle } A} = \frac{a}{c}$$

SOH-CAH-TOA

	Fraction	Decimal
Sin A =	8/10	.8
Sin C =	6/10	.6
Cos A =	6/10	.6
Cos C =	8/10	.8
Tan A =	8/6	$1.\overline{3}$
Tan C =	6/8	.75

A

6

B

10

8

C

90 miles

X

Equator

OPP

HYP

13°
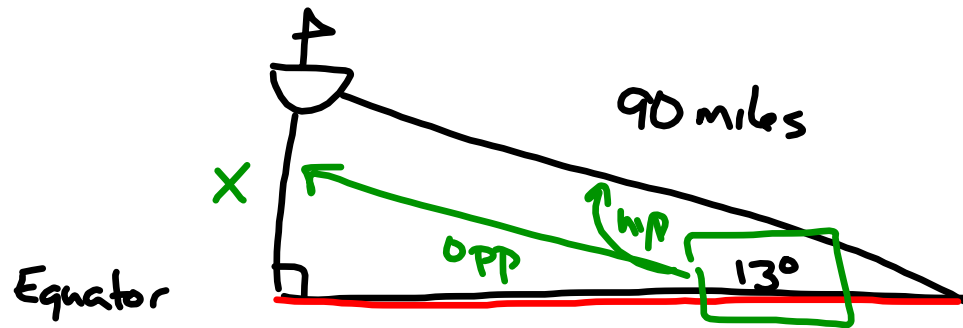
$$\frac{\sin 13°}{1} = \frac{x}{90}$$

$$90 \cdot \sin 13° = x$$

The boat is about 20.2 miles from the equator.