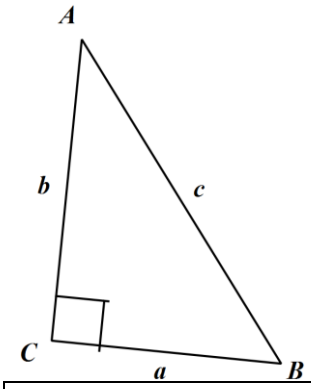
7.6

Date:

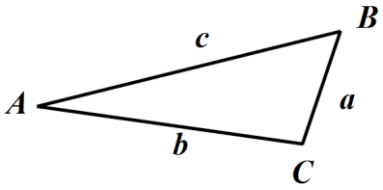
Objective:

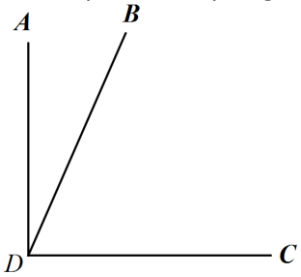
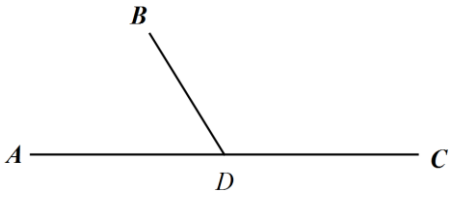
A. Right Triangle Reminders



1. Right triangle trigonometric functions:	
2. How to solve for a side if given 2 sides:	3. How to find an angle:

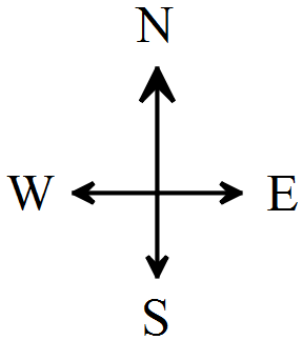
B. Information on all triangles



1. Triangle Sum Theorem:	
2. Complementary Angles:  	3. Supplementary Angles: 
4. How to solve if given AAS, ASA, ASS:	5. How to solve if given SAS, SSS:

C. Directions

Vocabulary: Bearing, heading, in the direction of



1. $S44°W$	2. $N72°E$

D. Descriptions of angles and variables

1. Define your variables:	2. Line of sight:
3. Angle of Elevation:	4. Angle of depression:

E. DRAW pictures!!!!!!!

Example 1

You are standing on top of a cliff 305 feet above a lake after a hike. The measurement of the angle of depression to a boat on the lake is $42°$. How far is the boat from the base of the cliff?

Example 2

Two tourists are 125 feet apart on opposite sides of a monument. The angles of elevation from the tourists to the top of the monument are $47°$ and $65°$. Find the height of the monument to the nearest foot.

Example 3

The distances from a boat to two seagulls on the shore are 100m and 80m respectively. If the angle between the two lines of sight is $55°$, how far would one seagull have to walk to meet the other seagull?

Example 4

Observatory B is 20 miles east of observatory A in the middle of the dessert. A car leaves A and drives 16 miles towards a meteor sighting. At this time, it is sighted from B. If the car is N$51°$W from observatory B, how far from observatory B is the car? Round your answer to the nearest tenth of a mile.