SOLVING RIGHT TRIANGLES

TEXT: 3.3

LAST NAME	FIRST NAME	DATE

1 (10 points)**.** Solve the right triangle ABC with the right angle C and hypotenuse c, given the information provided. Box your answers and round them to 3 significant digits.

(a) $B = 17^\circ$, $b = 6$

(b) $A = 37^\circ$, $c = 4.5$

(c) $a = 60$, $b = 87$

(d) $A = 70°$, $b = 64$

(e) $b = 101$, $c = 330$

(f) $B = 15'30''$, $a = 238,900$ miles

Make a rough sketch for this problem. If B is the angular radius of the Moon, and a is the distance to the Moon, then what is the meaning of b?

2. Solve the right triangle ABC with the right angle C and hypotenuse c, given that $c = 80$ and one of the acute angles is 6 times greater than the other acute angle. Box your answers and round them to 3 significant digits.

3. Solve the **isosceles triangle** XYZ with $\angle X = \angle Z$, given that $\angle Y = 14^\circ$ and $XZ = 22$. Make a rough sketch. Box your answers and round them to 3 significant digits.

4. Find the acute angles A and B of the right triangle ABC if the leg a is 5 times longer than the leg b. Box your answers and round them to 3 significant digits.

5. Find the length of the side of the regular pentagon inscribed into a circle of radius 100. Box your answer and round it to 3 significant digits.