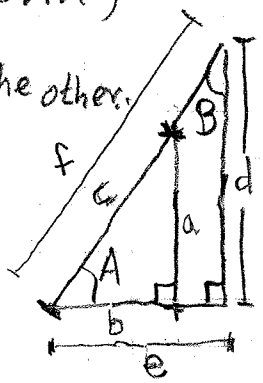
Sheet #621: NAME: EXAMPLE Period: ____

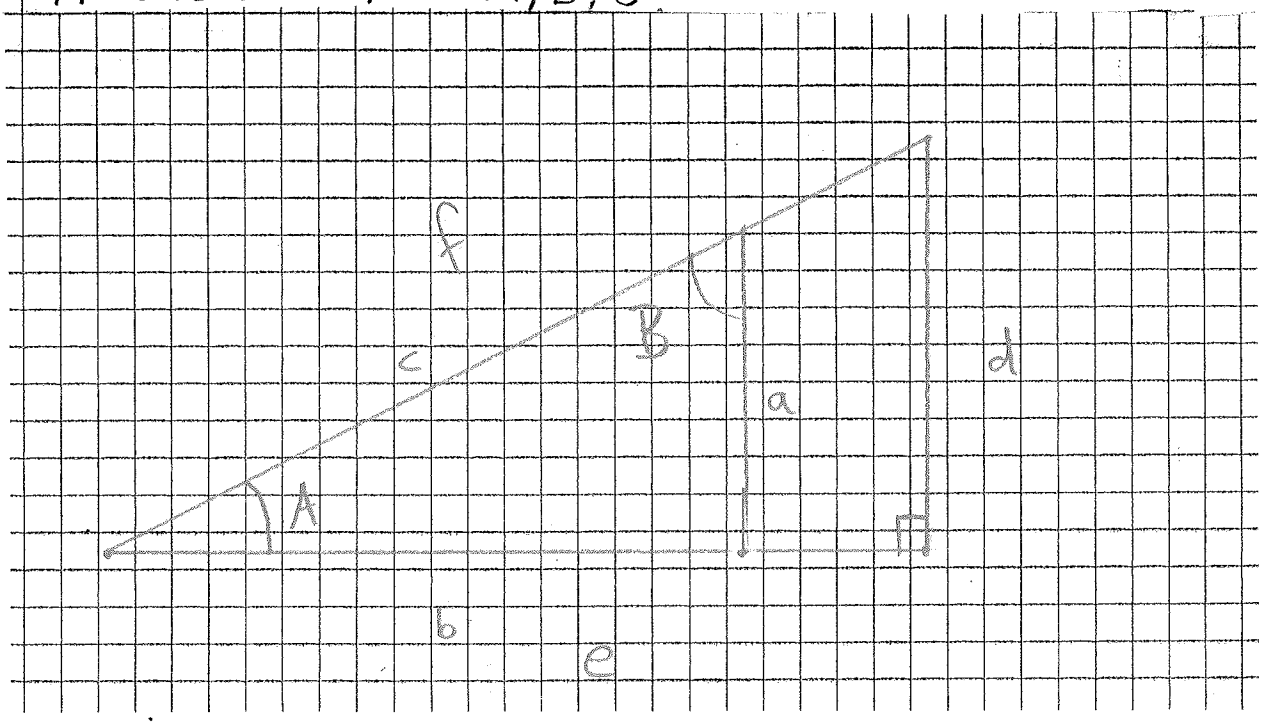
ANGLES & RATIOS OF RIGHT TRIANGLES

Use centimeters & degrees. (1cm = 10mm)

1. Draw two triangles: one stacked inside the other. They share a common angle A. You will be given the task to make A big, small or "medium" angle A.

2. Measure the sides (TO ONE DECIMAL) a, b, c and d, e, f.
3. Measure the angles A, B, C





ONE DECIMAL Lengths	Squares	Ratios	Angles	FILL OUT LATER Sin(ANGLE)
a = 4.3	$a^2 = 18$	$\frac{a}{c} = 0.45$	A = 27°	0.454
b = 8.5	$b^2 = 72$	$\frac{b}{c} = 0.89$	B = 64°	0.899
c = 9.5	$c^2 = 90$	$\frac{a}{b} = 0.51$	C = 90°	1.000
d = 5.5	$a^2 + b^2 =$ 90	$\frac{d}{f} = 0.45$	A + B = 91°	$(0.45)^2$
e = 11.0		$\frac{e}{f} = 0.89$		$+(0.89)^2$
f = 12.3		$\frac{d}{e} = 0.50$		$= 0.99$
				$\approx (1.00)^2$

4. Look for patterns in each column.

$a^2 + b^2 \cong c^2$

$a/c \cong d/f$ etc.

$A + B \cong 90°$

5. Report A and a/c to the class.
6. Fill Last Column