13.5A Friday, May 16, 2014 2:35 PM Sines Law of review basic geometry: naming angles & sides · Angles: CAPITAL Letters · Sides : Lowercase letters Law of Sines 1 -can be used in <u>non-right</u> triangles when you know <u>I side</u> & any 2 other parts of the triangle  $\frac{SinA}{a} = \frac{SinB}{b} = \frac{SinC}{c} = \frac{a}{sinA} = \frac{b}{sinB} = \frac{c}{sinC}$ Examples:  $\bigcirc$  Solve  $\triangle ABC$  with  $C = 107^\circ$ ,  $B = 25^\circ \& b = 15$ . ¥ A a  $\frac{\sin C}{c} = \frac{\sin B}{L}$ 180-(25+107) SINA Sinb 480 sin25101 Sin48° Sin25° csin25=155in107 <u>a sin25 = 15 sin48</u> SIN25 Sin25 sin25 sin25  $a = (15 \sin 48)$ C= 155in107 (sin25)sin 25

C= 15311101 sin25 C = 33.94② Solve  $\triangle ABC$  with  $B=34^\circ$ ,  $C=100^\circ$ , b=8B XA a С 34  $\frac{\sin A}{a} = \frac{\sin B}{1}$ 180- (34+100)  $\frac{\text{SinC}}{\text{C}} = \frac{\text{SinB}}{\text{b}}$ 46° 100  $\frac{Sin100}{C} = \frac{Sin34}{8}$ C  $\frac{\sin 46}{a} = \frac{\sin 34}{8}$ 8 <u>CSin37 = 8511100</u> asin 34 = 8sin 46 sin34 sin34 sin34 sin34 C = [4.09]a= 10.29 ③ Solve ∆ABC with A=51°, B=44° & C=11 11