Algebra 2YD Name_____ ID: 1

Skill Review/Reteach: SRT & Trig Ratios

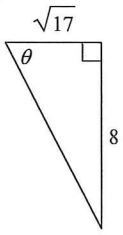
Date_____ Period____

1) Special Right Triangles
45-45-90

2) Special Right Triangles
30-60-90

Find the value of the trig function indicated.

3)



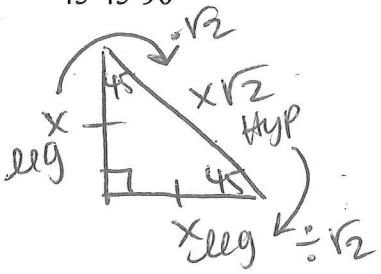
4) Find csc θ if $\tan\theta = \frac{2\sqrt{10}}{9}$

Algebra 2YD Name KEY ID: 1

Skill Review/Reteach: SRT & Trig Ratios

Date 2019-20 Period ____

1) Special Right Triangles
45-45-90



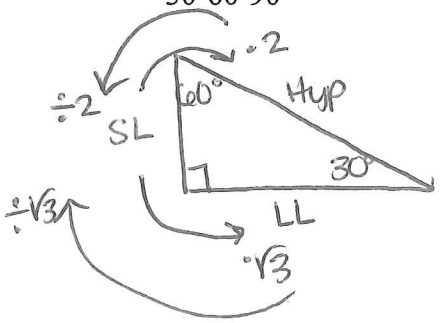
$1 : \sqrt{2}$

leg : hyp

$hyp = leg \cdot \sqrt{2}$

$leg = \frac{hyp}{\sqrt{2}}$

2) Special Right Triangles
30-60-90



$1 : \sqrt{3} : 2$

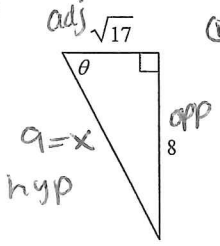
SL : LL : Hyp

$hyp = 2 \cdot SL$

$LL = SL \cdot \sqrt{3}$

Find the value of the trig function indicated.

3) ALL SIX RATIOS ⇒ SOHCAHTOA



① Find missing side

$a^2+b^2=c^2$

$(\sqrt{17})^2+8^2=x^2$

$17+64=x^2$

$\sqrt{81}=\sqrt{x^2}$

$9=x$

$\sin\theta = \frac{O}{H} = \frac{8}{9}$ $\quad \csc\theta = \frac{H}{O} = \frac{9}{8}$

$\cos\theta = \frac{A}{H} = \frac{\sqrt{17}}{9}$ $\quad \sec\theta = \frac{H}{A} = \frac{9 \cdot \sqrt{17}}{\sqrt{17} \cdot \sqrt{17}} = \frac{9\sqrt{17}}{17}$

$\tan\theta = \frac{O}{A} = \frac{8 \cdot \sqrt{17}}{\sqrt{17} \cdot \sqrt{17}} = \frac{8\sqrt{17}}{17}$ $\quad \cot\theta = \frac{A}{O} = \frac{\sqrt{17}}{8}$

4) Find $\csc\theta$ if $\tan\theta = \frac{2\sqrt{10}}{9}$ → opp, → adj

need hyp.

① use $a^2+b^2=c^2$ to find hyp.

$(2\sqrt{10})^2+9^2=(hyp)^2$

$40+81=(hyp)^2$

$\sqrt{121}=\sqrt{(hyp)^2}$

$11=hyp$

$\csc\theta = \frac{H}{O} = \frac{11 \cdot \sqrt{10}}{2\sqrt{10} \cdot \sqrt{10}}$

$= \frac{11\sqrt{10}}{20}$