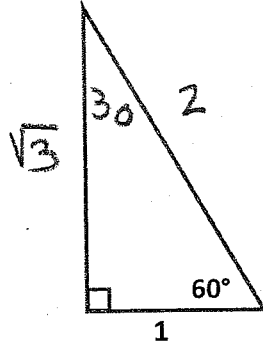
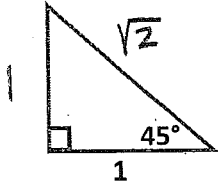


Geometry L8 Opener

Name: _____

1) Fill in the missing sides on the special right triangles:



2) Find the exact (no decimals approximations) value of each expression. Leave answer in simple radical form.

a) $\cos^2(60^\circ) + \tan^2(45^\circ)$

b) $\sin^2(45^\circ) + \cos^2(45^\circ)$

$$\left(\frac{1}{2}\right)^2 + \left(\frac{1}{1}\right)^2$$

$$\left(\frac{1}{\sqrt{2}}\right)^2 + \left(\frac{1}{\sqrt{2}}\right)^2$$

$$\frac{1}{4} + 1$$

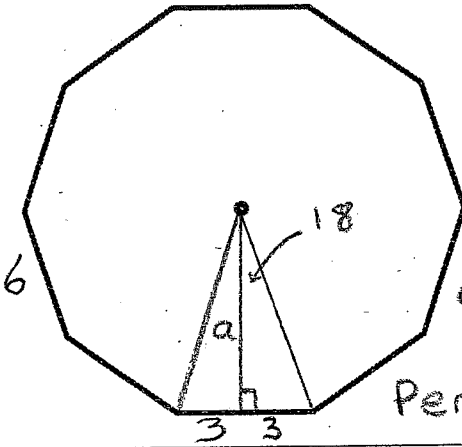
$$\frac{1}{2} + \frac{1}{2}$$

$$\boxed{\frac{1}{4} \text{ or } \frac{5}{4}}$$

$$\boxed{1}$$

No Calculator

3) Find the area of a regular decagon with side length 6 cm.



$$\tan 18^\circ = \frac{3}{a}$$

$$A = \frac{1}{2}(9.23)(60)$$

$$a \cdot \tan 18^\circ = 3$$

$$a = \frac{3}{\tan 18^\circ}$$

$$a = 9.23$$

$$\text{Perim} = 10 \cdot 6 = 60$$

Side Length: 6 cm

Apothem = 9.23 cm

Perim = 60 cm

Area = 276.99 cm²