Name_____ ID: 2
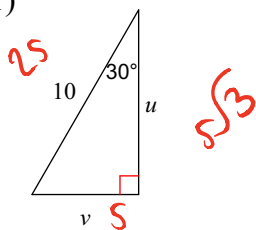## Topic 8 Mastery Check
Date_____ Period_____

Find the missing side lengths. Leave your answers as radicals in simplest form.

1)
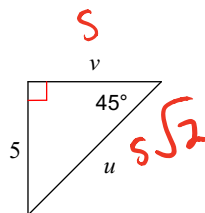
2⁵ 10 30° u √3 v S

$v = 5$
$u = 5\sqrt{3}$

A) $u = 5\sqrt{3}, \ v = 5\sqrt{2}$
B) $u = 5\sqrt{3}, \ v = 5$
C) $u = \dfrac{5\sqrt{3}}{2}, \ v = 5\sqrt{2}$
D) $u = 5\sqrt{2}, \ v = 5\sqrt{3}$

2)

S v 45° 5 u $5\sqrt{2}$

$v = 5$
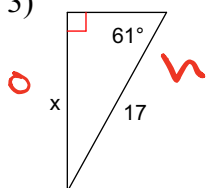$u = 5\sqrt{2}$

A) $u = 5\sqrt{2}, \ v = 5$
B) $u = 10, \ v = 5\sqrt{6}$
C) $u = 5\sqrt{6}, \ v = 5$
D) $u = 10, \ v = 5\sqrt{2}$

SOH CAH TOA
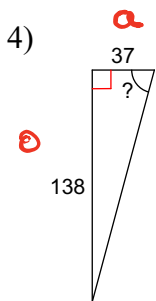
Find the missing side. Round to the nearest tenth.

3)

61° h o x 17

$17 \sin 61 = \dfrac{x}{17} \cdot 17$

$17 \sin 61 = x$
$x = 14.9$

Find the measure of the indicated angle to the nearest degree.

4)

a 37 ? θ 138

$\tan^{-1}\left(\dfrac{138}{37}\right) = \ ?$

$? = 75°$