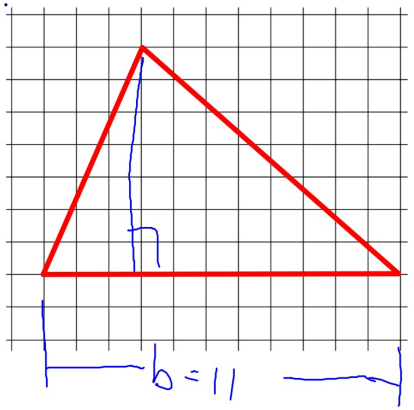
Right Triangle Tools:

- SOHCAHTOA (Trigonometry)
- Pythagorean Theorem
- Special Rt. Triangles (30° - 60° - 90° and 45° - 45° - 90°)

$\sqrt{3}$ → Between Legs
2 → HYP & SL
$\sqrt{2}$

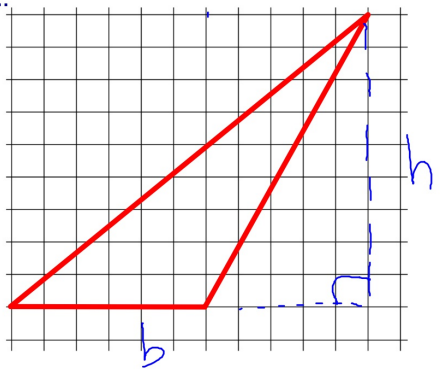
Find the area of each triangle.

1.



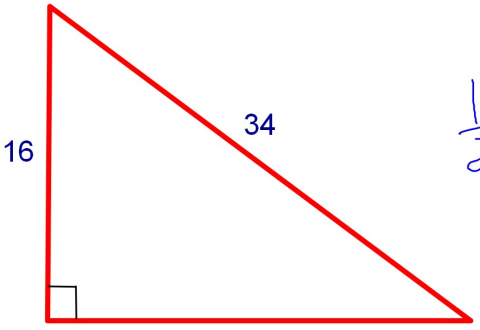
$= \frac{1}{2}bh = \frac{1}{2}(11)(7)$
$= 38.5$

2.



$\frac{1}{2}bh$
$\frac{1}{2}(6)(9) = 27$

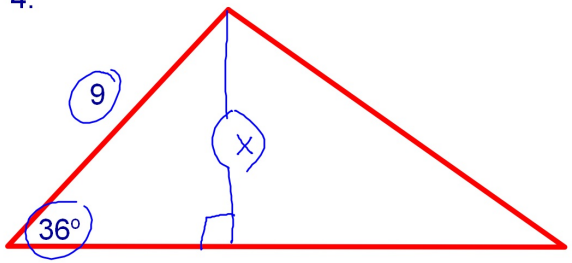
3.



$\sqrt{34^2 - 16^2}$

$\frac{1}{2}(16)(30) = 240$

4.



$\frac{1}{2}bh$

$\frac{1}{2}(16)(5.28)$

$A = 42.32$

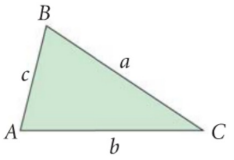
$\sin 36° = \frac{x}{9}$

5.29

Theorem 10-8 **Area of a Triangle Given SAS**

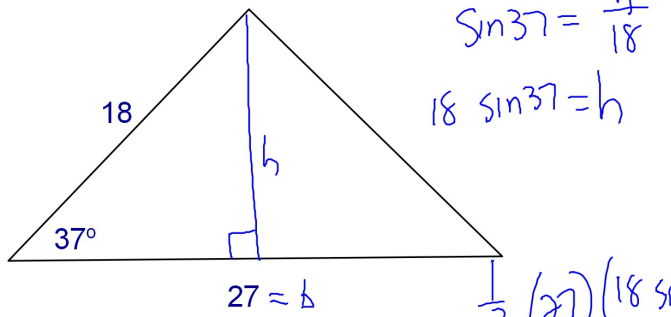
The area of a triangle is one half the product of the lengths of two sides and the sine of the included angle.

Area of $\triangle ABC = \frac{1}{2}bc(\sin A)$



Find the area of each triangle to the nearest tenth.

1.



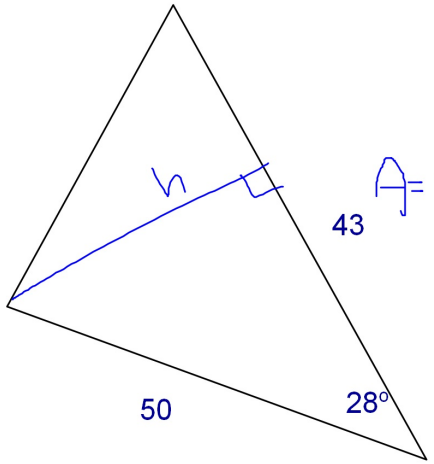
$\sin 37 = \frac{h}{18}$

$18 \sin 37 = h$

$\frac{1}{2}(27)(18 \sin 37)$

$= 146.24$

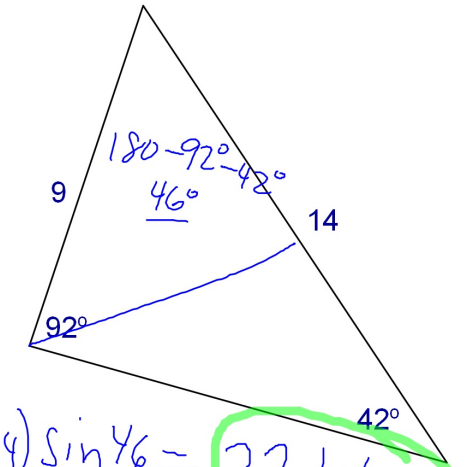
2.



$A = \frac{1}{2}(50)(43)\sin 28$

504.7

3.



$A = \frac{1}{2}(9)(14)\sin 46 = 22.66$

Hwk #25

Sec 10-5

Pages 561 - 562

Problems 2, 4, 7, 11, 12, 25, 26