Name: _____
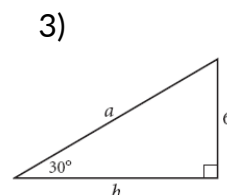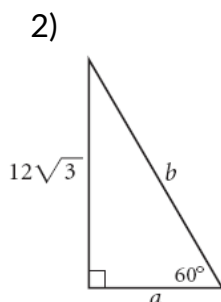
Special Right Triangles

1) Find the unknown lengths.

1)

a 14

2)

$12\sqrt{3}$ b

a 60°

3)

a 6

30° b
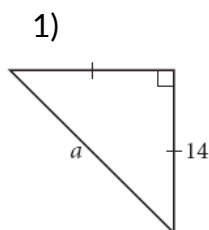
2) Find the area of rectangle ABCD

A   B

16

60°

D   C
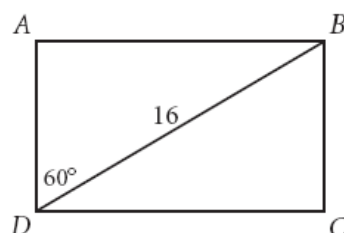
3) Find the perimeter and area of KLMN

N   7   M

12

45°   30°

K   L
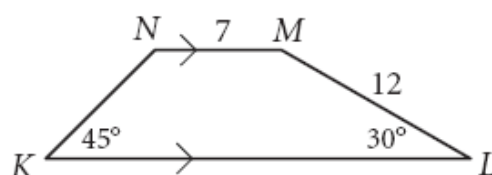
4) Find the area of an isosceles trapezoid if the bases have lengths 12 cm and 18 cm and the base angles have measure 60°.

5) A 20 ft ladder reaches a window 18 ft high. How far is the foot of the ladder from the base of the building? How far must the foot of the ladder be moved to lower the top of the ladder by 2 ft?

6) What are the dimensions of the largest 30°-60°-90° triangle that will fit inside a 45°-45°-90° triangle with leg length 14 in.? Sketch your solution.