Geometry Name _____ Hour _____

8.7 Law of Cosines (2, 12, 15, 16, 18, 24) - pick 5 – show work on reverse

In $\triangle BCD$, given the following measures, find the measure of the missing side.

2. $b = 107, c = 94, m\angle D = 105$

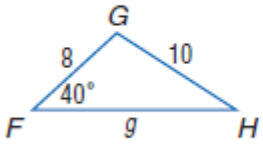
In $\triangle EFG$, given the lengths of the sides, find the measure of the stated angle to the nearest degree.

12. $e = 9.1, f = 8.3, g = 16.7; m\angle F$

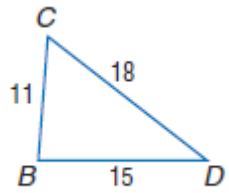
15. $e = 21.9, f = 18.9, g = 10; m\angle G$

Solve each triangle using the given information. Round angle measures to the nearest degree and side measures to the nearest tenth.

16.



18.



Real-World Link

The Swissôtel in Chicago, Illinois, is built in the shape of a triangular prism. The lengths of the sides of the triangle are 180 feet, 186 feet, and 174 feet.

Source: Swissôtel

24. BUILDINGS Refer to the information at the left. Find the measures of the angles of the triangular building to the nearest tenth.