Review 8-2 to 8-3

***Write irrational answers in simplified radical form AND in decimal form rounded to the nearest tenth.***

**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Block\_\_\_\_\_**

**Pythagorean Theorem: a2 + b2 = c2  Find x.**



**Converse of the Pythagorean Theorem: Determine whether each set of measures can be the sides of a right, obtuse, or acute triangle. If it is a right triangle, then state whether the sides form a Pythagorean Triple**.

**7.** 30, 40, 50 **8.** 20, 30, 40 **9.** 18, 24, 30



**10.** 6, 8, 9 **11.** **12.** 10, 15, 20



**13.** **14.** **15.** 9, 40, 41

**Pythagorean Triples:** A family of Pythagorean triples consists of multiples of known triples. For each Pythagorean triple, find two triples in the same family.

 **16.** 3, 4, 5 **17.** 5, 12, 13 **18.** 7, 24, 25

**Application Problem:**

**19.** The bottom end of a ramp at a warehouse is 10 feet from the base of the main dock

 and is 11 feet long. How high is the dock?

**Special Right Triangles: 30° - 60° - 90°** **Find x and y.**



**25.**

**24.**

**23.**

**22.**

**21.**

**20.**

**26.** The perimeter of an equilateral triangle is 32 cm. Find the length of an altitude of the triangle to

 the nearest tenth of a centimeter.

**27.** An altitude of an equilateral triangle is 8.3 meters. Find the perimeter of the triangle to the

 nearest tenth of a meter.

**Special Right Triangles: 45° - 45° - 90° Find x.**



**30.**

**29.**

**28.**

**32.**

**31.**

**33.**

**34.** Find the perimeter of a square with a diagonal that measures 12 centimeters.

**35.** Find the diagonal of a square with a perimeter of 20 inches.