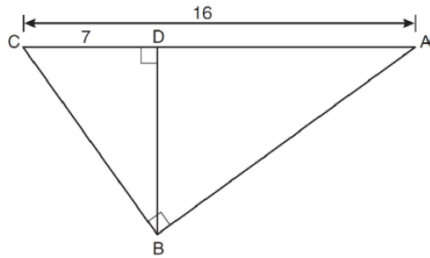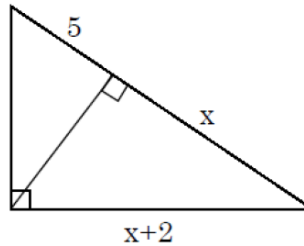# What Do They Call Bowling in Hawaii?

Solve each problem below. Then find your solution in the answer column and notice the letter next to it. Write this letter in each box that contains the number of that problem. Aloha-ha-ha!
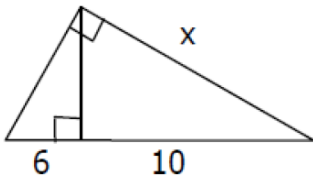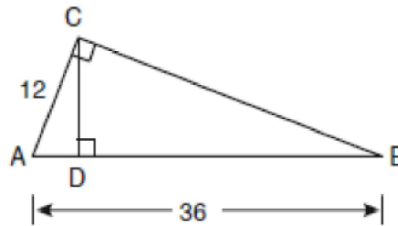
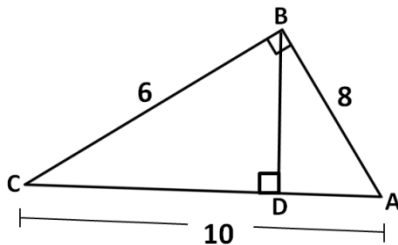**1** Find the length of $\overline{BD}$.

2 Solve for x.

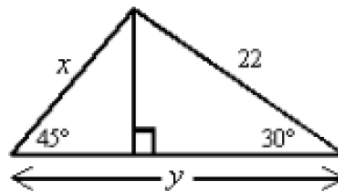**3** Find the value of x.

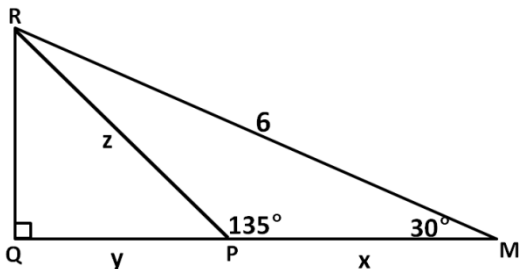**4** Find the length of $\overline{DB}$.

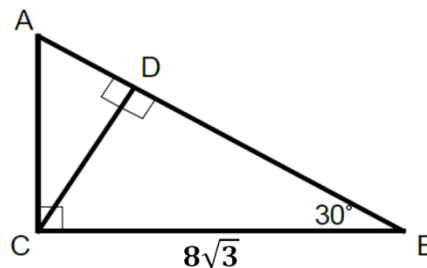**5** Find the length of $\overline{BD}$.

6 Find the values of x and y.
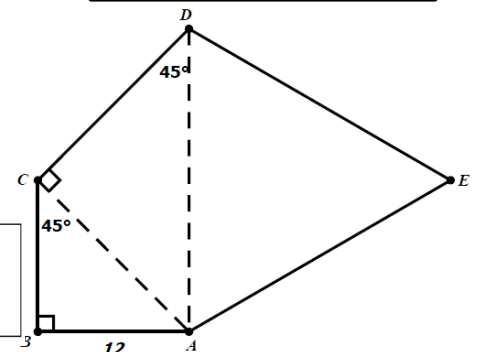

7 Solve for x, y and z

8 Find the lengths of $\overline{AC}, \overline{AB}$, and $\overline{CD}$.

9 The length of a diagonal of a square is 88 inches. What is the perimeter of the square?

10 Given the diagram to the right, m∠CDE=105° and m∠BAE=150°, find the perimeter of ABCDE.

Answer column:

- (A) $8, 8, 8\sqrt{3}$
- (O) 32
- (L) $72 + 12\sqrt{2}$
- (G) $11\sqrt{2}, 11+11\sqrt{3}$
- (F) 96
- (D) $18\!/\!5$
- (T) 4
- (N) $176\sqrt{2}$
- (I) $24\!/\!5$
- (S) $4\sqrt{10}$
- (B) $4, 1$
- (E) $3\sqrt{7}$
- (M) 352
- (P) $22\sqrt{3}$
- (H) $3\sqrt{3}-3, 3, 3\sqrt{3}$
- (R) $8, 16, 4\sqrt{3}$

8	4	10	10	5	9	6	5	9	2	7	1	5	3	10	1	3

Why Was the Pail Pale?

Rationalize the denominator and simplify each expression. Find your answer below and notice the letter next to it. Write this letter in each box containing the number of that exercise.

① $\dfrac{5}{\sqrt{3}}$

② $\dfrac{2}{\sqrt{7}}$

③ $\dfrac{20}{\sqrt{5}}$

④ $\dfrac{14}{\sqrt{2}}$

⑤ $\dfrac{4}{\sqrt{10}}$

⑥ $\dfrac{3}{\sqrt{12}}$

⑦ $\dfrac{30}{\sqrt{18}}$

⑧ $\dfrac{8}{\sqrt{20}}$

⑨ $\dfrac{9}{2\sqrt{45}}$

⑩ $\dfrac{\sqrt{7}}{\sqrt{3}}$

⑪ $\dfrac{3\sqrt{6}}{\sqrt{2}}$

⑫ $\dfrac{2\sqrt{3}}{\sqrt{15}}$

Answers:

Ⓒ $7\sqrt{2}$ Ⓐ $4\sqrt{5}$

Ⓡ $2\sqrt{7}$ Ⓔ $\dfrac{2\sqrt{10}}{5}$

Ⓢ $\dfrac{5\sqrt{3}}{3}$ Ⓓ $\dfrac{5\sqrt{10}}{2}$

Ⓝ $\dfrac{\sqrt{3}}{2}$ Ⓤ $\dfrac{2\sqrt{7}}{7}$

Answers:

Ⓕ $\dfrac{5\sqrt{2}}{2}$ Ⓚ $\dfrac{\sqrt{21}}{3}$

Ⓣ $\dfrac{3\sqrt{5}}{10}$ Ⓗ $\dfrac{5\sqrt{5}}{4}$

Ⓦ $\dfrac{2\sqrt{5}}{5}$ Ⓛ $3\sqrt{3}$

Ⓘ $5\sqrt{2}$ Ⓑ $\dfrac{4\sqrt{5}}{5}$

7	9	12	3	1	6	9	3	12	5	11	11	8	2	4	10	5	9