Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_

**7.3D HOMEWORK**

*Objective: Apply the Pythagorean Theorem to real-life application(CCSS: 8.G.8)*

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| 1. Find the length of the hypotenuse of the triangle. Keep answer as a fraction.

1$$\frac{3}{4}$$ |
| 1. The volume V of a cylindrical can is represented by the formula $V=πr^{2}h$, where h is the height and r is the radius. A cylindrical can has a volume of $256π$ cubic centimeters and a height of 4 centimeters. What is the radius of the can?
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| 1. Two groups of hikers leave the same camp heading in opposite directions. The first group travels 2 miles north and 1 mile east. The second group travels 2 miles south and 2 miles west.
2. Draw the situation in the coordinate plane using a right triangle. Use the origin as the camp location, and let each unit represent 1 mile.
3. Determine the distance between the two groups after the hikes. Round answer to the nearest tenth if necessary.

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| 1. The base of a triangular prism is an isosceles right triangle with a hypotenuse of $\sqrt{98}$ centimeters. The height of the prism is 4 centimeters. Find the surface area of the triangular prism. Round your answer to the nearest tenth.

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Solution: 1)$\frac{5}{4}$ 2)$ 8 cm$ 3)$ 5 miles$ 4) $144.6 cm^{2}$