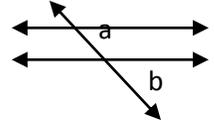


### Frozen Movie Questions

1. The ice blocks the men are creating measure 3.4 feet long, 2.7 feet wide, and 1.5 feet high. What is the volume of the ice blocks?

2. The snowflake creates two parallel lines cut by a transversal. If the measurement of *angle a* is 127 degrees, what is the measurement of *angle b*?



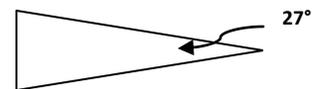
3. The picture of the girl swinging in the ballroom is a rectangle. If the length measures 8 feet by 13 feet what is the length of the diagonal to the nearest tenth?

4. Elsa during the ball shows her “sorcery” and throws out icicles in her anger. If the small ice had the original coordinates of (-2, 6), (-8, -4), and (4, 2) and then started melting. If the ice dilated by a scale factor of 0.5, what are the new coordinates?

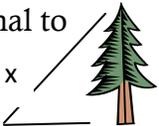
5. Olaf the snowman has a circular body with a diameter of 12 inches. What is the volume of his body?



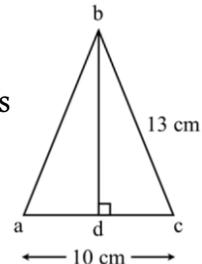
6. Olaf has a triangular carrot for a nose. If his nose is an isosceles triangle with the tip of his nose at  $27^\circ$ , what is the measurement of the other two angles?



7. The pine trees are 20 feet tall and cast a shadow of 5 feet. What is the missing length of the diagonal to the nearest tenth?



8. The triangles in the window have a base of 10 cm and a diagonal that measures 13 cm. What is the height of the triangles?



9. The ice mountain is shaped like a cone. If the volume of the mountain is 304,000 cubic ft, what is this number written in scientific notation?

10. Elsa is  $2.61 \times 10^9$  feet away from her castle in her ice castle on the mountain. What is this number in standard notation?

11. The triangles on the walls of the castle Elsa sings "Let it Go" in have angles that measure  $12^\circ$  and  $41^\circ$ . What is the measurement of the missing angle?

12. When Olaf, Anna, and Kristoff fall 12 feet down to the snow. They land 16 feet away from the face of the cliff. What is the distance from where they landed to the top of the cliff?

13. The fountain in the middle of the ice kingdom is 2 feet tall and has a diameter of 16 feet. How much water can the fountain hold?

14. Bulda the troll when in boulder form has a radius of 9 inches. What is her volume?



15. The roof of the trading post creates a right triangle with legs of 4 ft. and 5 ft. What is the length of the slope of the roof to the nearest tenth?

16. The boulder trolls started at a rate of  $(1.7 \times 10^1)$ . If they multiply by  $(4 \times 10^0)$ . How many boulder trolls are there now?

17. On Queen Elsa's castle the columns are cylindrical shaped. If they measure 3 feet wide in diameter and 60 feet in height, what is the volume of ice it takes to make the columns?

18. Kristoff was riding Sven down the hill at a fast pace, he then slowed down when he got close to the castle. He finally stopped when he got to the door. Draw a representation of this showing their speed over time.

19. Prince Hans is 6 ft tall and the fireplace casts a shadow of 2 ft. Anna has a shadow of 1.5 ft. How tall is Anna?

20. The triangular ice spikes on Marshmallow have a hypotenuse of 17 cm and one leg that measures 15 cm. What is the measure of the other leg of the ice spike?

