Name_____ Date_____ Class _____

# Solve Linear Equations in One Variable

## Module 5

**Choose the best answer.**

1. Solve $x + \frac{4}{15} = \frac{2}{3}$.

2. Solve $2 - z = 4.5$.

3. Find the value of $t$ is the solution for the equation $9.45 = t + 3.7$?

4. What is the value of $k$ for this equation: $\frac{k}{1.6} = 13$?

5. What is the value for $m$ for this equation: $3m - 6.8 = 31$?

6. Solve $6d + 4 + 5d - 2d = 58$.

7. Solve for $x$. $4x - 8 = 16$

8. Solve $\frac{h}{2} + \frac{h}{5} = 14$.

9. Solve $9y - 6 + y + 8 = 42$.

10. Chris has a job selling newspapers every morning. He receives a base pay of $10 per day and also gets 15 cents for every paper he sells. One morning he made $16.45. How many papers did he sell?

11. Solve $2(s - 4) - 7 = -19$.

12. Solve $\frac{n}{2} + 7 = 22$.

13. Solve $12x + 15 = 24 - 6x$.

14. Solve $\frac{3w}{2} + \frac{1}{2} = w + 4$.

15. Solve $\frac{m + 12}{2} = 4$

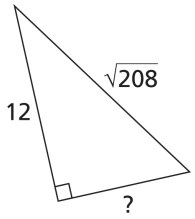
16. Solve $-5y + 8 = -10 + y$.

Name_____ Date_____ Class _____

## Geometric Applications of Exponents

## Module 6

1. Find the missing length.

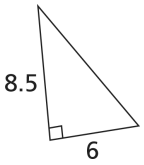



2. Find the hypotenuse of the right triangle that has legs of 5 ft and 7 ft.

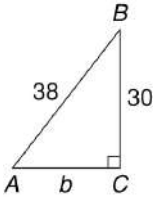
.

3. . A 15-foot ladder is leaning against a wall. If the top of the ladder is 14.5 feet up the wall, how far is the base of the ladder on the ground from the wall? Round to the nearest tenth.

4. . Find the length of the hypotenuse of the right triangle. Round to the nearest tenth.




5. Find the missing side.




6. Maria left her house and walked 2 miles north. Then she turned and walked 3 miles west. How far is Maria from her house? Round your answer to the nearest tenth.

Tell whether the side lengths form a right triangle.

7. 8, 9, 10

8. 12, 14, 15

9. 14, 15, 21

10. 17, 19, 25

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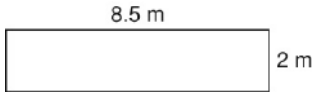
Name_____ Date_____ Class _____

## Perimeter, Circumference, and Area Module 12 (7th Grade)

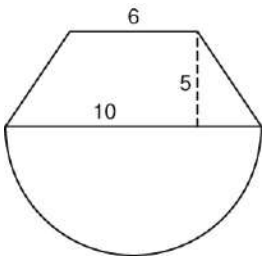
1. Find the perimeter of the rectangle.




2. Find the circumference of a circle with the radius of 5.5 in. Use 3.14 for $\pi$. Round the nearest tenth.

3. The diameter of a circle is 14 m. What is the area of the circle?

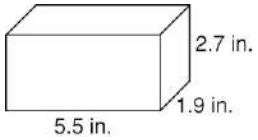
4. Find the area



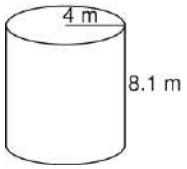

## Volume and Surface Area

**Module 13 (7th Grade)**

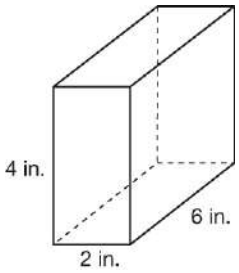
**1.** Find the volume of the prism to the nearest tenth.




**2.** Calculate the volume of the cylinder to the nearest tenth. Use 3.14 for $\pi$.

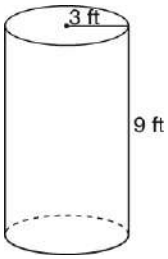



**3.** Find the surface area.




4. Find the surface area

Name_____ Date_____ Class _____



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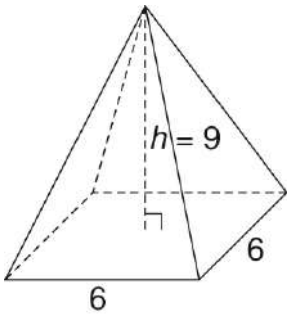
## Volume

**Module 7 (8th Grade)**

1. Find the volume of the figure below.

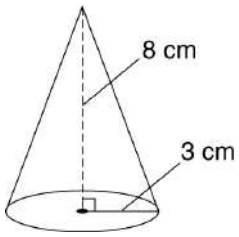



2. Find the volume of a triangular prism whose base area is 12 $in^2$ and height is 5 in.

3. Find the volume of a sphere with radius 11 m to the nearest tenth. Use 3.14 for $\pi$.

4. Find the volume and surface area of a sphere with a radius of 2 cm to the nearest tenth. Use 3.14 for $\pi$.

5. Find the volume.

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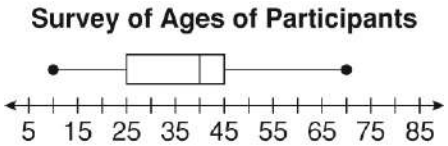
## Inferences B&W

**Module 10 (7th Grade)**

**Use the box-and-whisker plot for 1–2.**



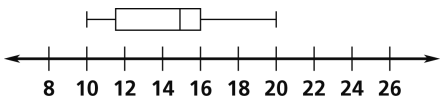

1.What is the range of ages in years for the participants?

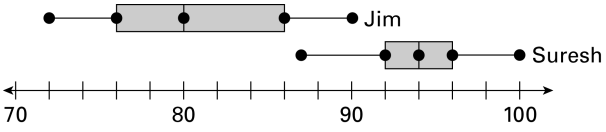
2. Twenty-five percent of the participants was younger than what age?

3. **Use this data:**
   **15, 8, 11, 5, 12, 10, 9**
   Find the 5 number summary.

4.The box-and-whisker plot was made incorrectly from the data set. State the two errors in the plot.

17, 13, 10, 15, 16, 12, 13, 20, 18




5.Which B&W plot is more predictable?

6. Which one has the highest median?

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## Inferences MAD

**Module 10 (7th Grade)**

Use the data to answer the following.
Sample A.
1,6,2,4,4,3,5,5,2,8
Sample B.
3,4,5,4,3,2,4,5,4,4

1. Find the Mean for Sample A.

2. Find the MAD for Sample A

3. Find the Mean for Sample B.

4. Find the MAD for Sample B.

5. Which sample would you say is more consistent? Why?

## Inferences Pop&Samp

**Module 10 (7th Grade)**

Tell whether each sample may be biased. Name the type of sample.

1. A town official surveys 50 people in a library to decide if town residents want the library expanded.

2. A cable TV company randomly calls 200 customers and asks them if they are satisfied with their service.

3. A landlord e-mails 60 of his 1,250 tenants and surveys them to determine whether they would like to use the Internet to pay rent.

4. An insurance company surveys 350 of its customers by randomly choosing names from its customer database and then telephoning the customers.

**Tell whether you would survey the entire population or a sample.**

5. You want to know how many hours members of a sports team train each week during the off-season.
6. You want to know the average income of people who eat at vegetarian restaurants across the country.

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# Inferences (7th Grade)

## Mod 10 Populations and Samples

**Choose the letter of the sampling method that will better represent the whole population.**

1. Clinton School Cafeteria: Student Satisfaction

   a. Mark surveys 40 students who are in his classes. 72% are satisfied with the food in the cafeteria.

   b. Tammy surveys 65 students by randomly choosing names from a list of all students in the school. 85% are satisfied with the food in the cafeteria.

2. Predicted Winner in an Election for Mayor

   a. Harris telephones 100 randomly chosen voters. 54% plan to vote for Mayor Green.

   b. Julia asks 70 people whom she knows. 45% plan to vote for Mayor Green.

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# Inferences (7th Grade)

## Mod 10 Populations and Samples

1. A high school has 1,800 students. A random sample of 80 shows that 24 have cell phones. Predict the number of students in high school who have cell phones.

2. A factory produces 500,000 nails per day. The manager of the factory estimates that there are less than 2,500 misshapen nails made per day. A random survey of 500 nails finds 4 misshapen ones. Is the manager correct in his estimate? Explain.

Define:

1. Biased sample
2. Population:
3. Random Sample:
4. Sample:
5. Census:
6. Parameter: