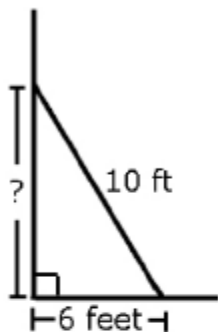


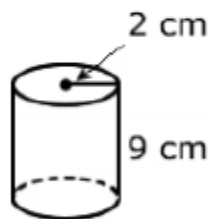
Lesson 10.2 Two Way Tables Day 1

Week 3 Tuesday Course 3 Warm-up

A 10-foot ladder is leaned up against a house. If the bottom of the ladder is 6 feet from the side of the house, how far up the side of the house does the ladder reach?



Which is closest to the volume of the cylinder below?



Use $\pi = 3.14$

- A) 6.28 cubic cm
- B) 12.56 cubic cm
- C) 56.52 cubic cm
- D) 113.04 cubic cm

What is the solution?

$$\begin{cases} 2x - y = 0 \\ x + 2y = 10 \end{cases}$$

- A) $x = -10, y = 10$
- B) $x = -3\frac{1}{3}, y = 6\frac{2}{3}$
- C) $x = 2, y = 4$
- D) There are no solutions.

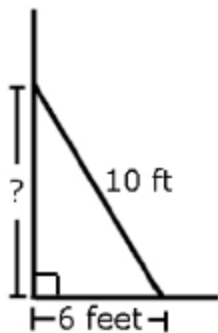


Which of the following is an irrational number?

- A) 2
- B) $\sqrt{2}$
- C) -0.0005
- D) $\sqrt{16}$

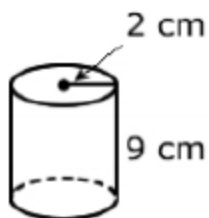
Week 3 Tuesday Course 3 Warm-up

A 10-foot ladder is leaned up against a house. If the bottom of the ladder is 6 feet from the side of the house, how far up the side of the house does the ladder reach?



8 feet

Which is closest to the volume of the cylinder below?



Use $\pi = 3.14$

- A) 6.28 cubic cm
- B) 12.56 cubic cm
- C) 56.52 cubic cm
- ✓ D) 113.04 cubic cm

What is the solution?

$$\begin{cases} 2x - y = 0 \\ x + 2y = 10 \end{cases}$$

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- D) There are no solutions.

Which of the following is an irrational number?

- A) 2
- ✓ B) $\sqrt{2}$
- C) -0.0005
- D) $\sqrt{16}$



Lesson 10.3 Two Way Tables Day 1



▶ A line of best fit can be used to model the linear association of bivariate quantitative data. A two-way table displays the relative frequencies of categorical data.

Objective

TSW

- Read data from a two-way table
- Construct and interpret a two-way table
- Convert data to relative frequencies in a two-way table

Common Core State Standards

8SP.4– Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table.

Mathematical Practices 1. Solve problems/persevere. 2. Reason. 4. Model mathematics

Lesson 10.3 Two Way Tables Day 1

TSW

- Read data from a two-way table
- Construct and interpret a two-way table
- Convert data to relative frequencies in a two-way table

8SP 4- Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table.

Vocabulary

Qualitative (Categorical) data-

Data that involve variables that cannot be measured numerically.

Example: Answers to Yes/No or True/False Questions

Give another real life example of **Qualitative data-**

Two Way Table-

A table that shows frequencies for two corresponding sets of categorical or qualitative data.

		Glasses		Total
		Yes	No	
Gender	Boy	8	7	15
	Girl	9	16	25
	Total	17	23	40

Lesson 10.3 Two Way Tables Day 1

TSW

- Read data from a two-way table
- Construct and interpret a two-way table
- Convert data to relative frequencies in a two-way table

8SP 4- Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table.

Vocabulary

Qualitative (Categorical) data-

Example:

Give another real life example of **Qualitative data-**
Two Way Table-

		Glasses		Total
		Yes	No	
Gender	Boy	8	7	15
	Girl	9	16	25
	Total	17	23	40

Lesson 10.3 Two Way Tables Day 1

Example 7 Read a two-way table.

The results of a poll of 100 adults about their favorite sport are shown in the two-way table below. Some information is missing from the table.

		Favorite Sport				Total
		Basketball	Baseball	Tennis	Swimming	
Gender	Men	16	27	5	12	60
	Women	2	6	16	?	?
	Total	?	?	?	?	?

- Find the total number of women.
- Find the number of women who chose swimming as their favorite sport.
- Complete the table with the total number of men and women who chose each sport.

Lesson 10.3 Two Way Tables Day 1

a) Find the total number of women.

Solution

$$\text{Total number of women} = 100 - 60 = 40$$

There are 40 women in total.

b) Find the number of women who chose swimming as their favorite sport.

Solution

$$\begin{aligned} &\text{Number of women who chose swimming} \\ &= \text{Total number of women} - \text{Number of women who chose other sports} \\ &= 40 - 2 - 6 - 16 \\ &= 16 \end{aligned}$$

16 women chose swimming as their favorite sport.

c) Complete the table with the total number of men and women who chose each sport.

Solution

$$\text{Total number of people who chose basketball} = 16 + 2 = 18$$

$$\text{Total number of people who chose baseball} = 27 + 6 = 33$$

$$\text{Total number of people who chose tennis} = 5 + 16 = 21$$

$$\text{Total number of people who chose swimming} = 12 + 16 = 28$$

		Favorite Sport				Total
		Basketball	Baseball	Tennis	Swimming	
Gender	Men	16	27	5	12	60
	Women	2	6	16	16	40
	Total	18	33	21	28	100

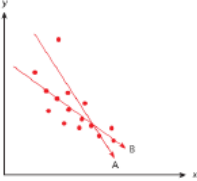
Lesson 10.3 Two Way Tables Day 1

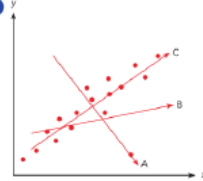
Practice 10.3 #1-9

Name: _____ Date: _____

Practice 10.2

State the line that represents a line of best fit for each scatter plot.

1 

2 

Draw a scatter plot and a line of best fit for each table of bivariate data.

3 Use 1 centimeter on the horizontal axis to represent 1 unit. Use 1 centimeter on the vertical axis to represent 20 units.

x	4	1	2	3	5	6	3	6	2	7
y	72	12	32	164	88	112	52	88	40	136

4 Use 1 centimeter on the horizontal axis to represent 1 unit for the x interval from 80 to 87. Use 1 centimeter on the vertical axis to represent 10 units for the y interval from 200 to 300.

x	80	84	81	87	81	86	82
y	220	236	214	256	200	250	292

x	83	83	84	85	85	83	82
y	220	240	238	240	244	232	222

5 Use 1 centimeter on the horizontal axis to represent 0.1 unit. Use 1 centimeter on the vertical axis to represent 5 units for the y interval from 20 to 70.

x	0.1	0.9	0.3	0.4	0.4	1.1	1.0
y	69	59	66	65	64	58	61

x	0.8	0.5	0.7	0.7	0.6	0.2	0.5
y	59	65	63	60	30	68	62

Course 3

Challenge-

*MangaHigh provides additional challenge

*Pick a Problem

*BuzzMath



 Lesson Check #5,6,8-can read and interpret a two-way table

Ticket Out the Door-

What is the purpose of using a two-way data table when reading bivariate data?