

Monday March 23, 2020

Week 2 Lesson 1

Virtual Lesson #2.1

1. Which expression is equivalent to $-15x + 39$?

A $-3(5x - 13)$ B $-3(5x + 13)$ C $3(5x - 13)$ D $3(5x + 13)$

2. Which event has a 50% chance of occurring?

A rolling a 2 on a number cube

B rolling a number less than a 5 on a number cube

C spinning a blue with a spinner that has blue, yellow, red

D rolling a number greater than 3 on a number cube

3. The temperature at 6:00 am was -12 . The temperature increased by $\frac{1}{2}$ degrees each hour for 6 hours. What was the temperature after 6 hours?

4. Determine the mean of: 55, 83, 23, 11, 45, 4, 23, 45

CALCULATOR FOR #4 ONLY



Virtual Learning Week 2 - Surface Area

1. Which expression is equivalent to $-15x + 39$?

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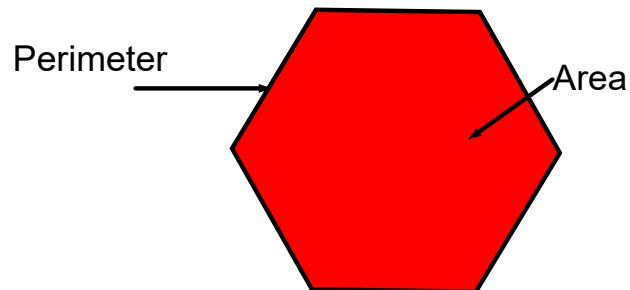
4. Determine the mean of: 55, 83, 23, 11, 45, 4, 23, 45

LEQ: How can the surface area of three-dimensional figures be determined?

Activator: Area vs. Perimeter

Perimeter- the distance around the outside of a shape

Area- the amount covered inside of a shape



Virtual Learning Week 2 - Surface Area

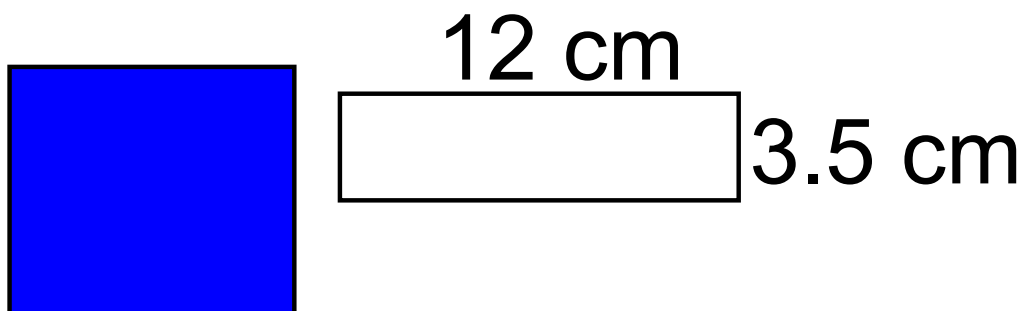
Area of rectangles and squares

$$\text{area} = \text{length} \cdot \text{width}$$

$$a = lw$$

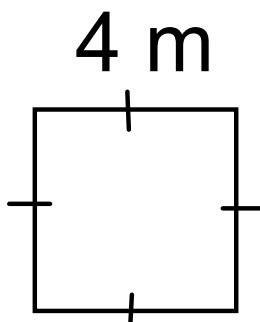
Example:

Determine the area of the figure shown below.

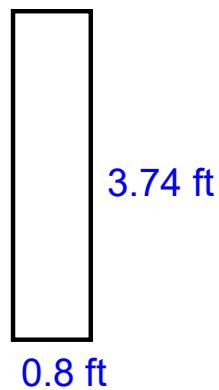


Determine the area of the following

#1



#2



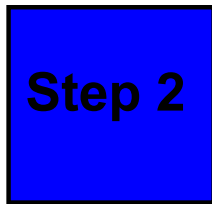
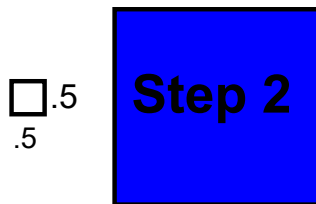
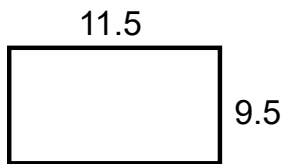
#3. A rectangle has a width of 7.5 centimeters. The length is twice as long as the width. Determine the area.



model

Using area to solve problems: rectangles

A kitchen is shaped like a rectangle with dimensions of $11\frac{1}{2}$ ft by $9\frac{1}{2}$ ft. The floor of the room is made of square tiles with a side length of $\frac{1}{2}$ ft. What is the number of tiles that will cover the kitchen floor?



How can we determine how many square tiles can fit?



Try these...

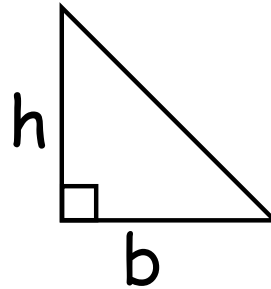
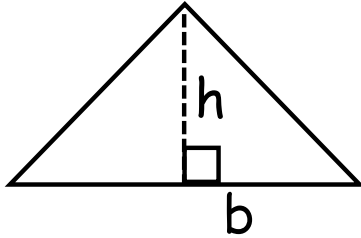
1.) A kitchen is rectangular with a length of 12 feet and a width of 15 feet. A square tile has an edge length of 1.5 feet. How many tiles will it take to cover the floor?



2.) A rectangular bedroom has dimensions of 12 x 12. If a peice of carpeting has dimensions of 2 x 2, how many pieces of carpet will it take to cover the bedroom floor?

Determining the area of a triangle:

$$\text{area} = \frac{1}{2} \cdot \text{base} \cdot \text{height} \text{ -OR- } \text{area} = \frac{\text{base} \cdot \text{height}}{2}$$



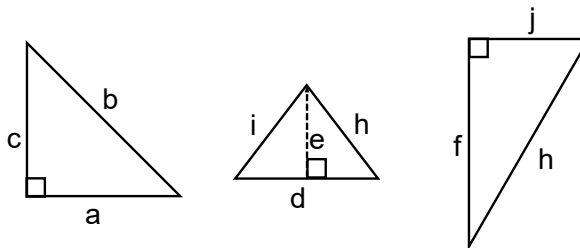
*****Know your formulas*****

Applying the formula

height: How "tall a triangle is"

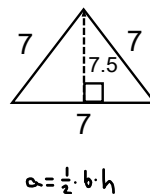
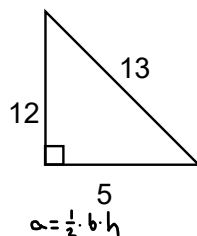
base: the "flat side" of a triangle

Use the two sides that form a right angle!



What two sides would be used to determine the area of each figure?

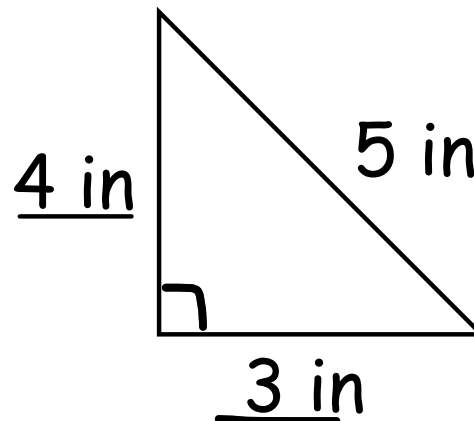
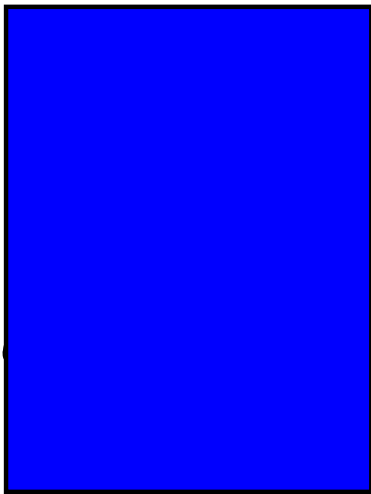
(SCROLL DOWN)



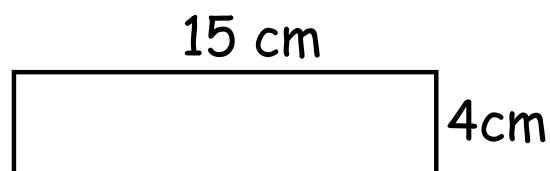
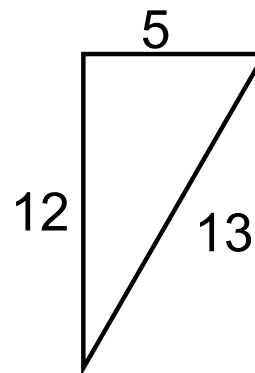
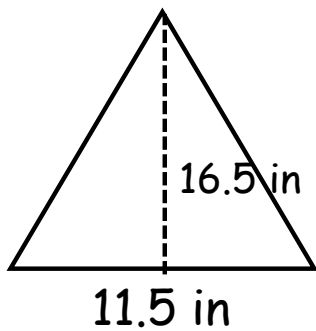
Virtual Learning Week 2 - Surface Area

Notes - Determine the area of the following figures

Write the formula for each figure BEFORE you solve!



You try...



Classwork Directions: **bit.ly/7AreaDay1**

- 1.) 12 Questions on ProblemAttic
- 2.) Show your work for each question
- 3.) List your formulas as you need them!
- 4.) Any questions email your teacher

JuliusR.Archer@cms.k12.nc.us

Charles1.Smith@cms.k12.nc.us

Scores will be posted on PowerSchool tonight
or tomorrow morning

Tuesday March 24, 2020

Week 2 Lesson 2

Virtual Lesson #2.2

Virtual Learning Week 2 - Surface Area

1. Which expression is equivalent to $-5(m - 2)$

A $-5m - 10$ B $-5m - 7$ C $-5m + 10$ D $-5m + 7$

2. Which event is most likely to occur?

A spinning a blue with a spinner that has blue, yellow, red

B flipping a heads on a coin

C rolling a 6 on a number cube

D rolling a number greater than 2 on a number cube



3. The temperature outside is -8 degrees. If the temperature dropped by $\frac{1}{2}$ a degree each hour, what would the temperature be after 6 hours?

4. Determine the mean of: 4.5, 3.75, 2.87, 1.5, 5, 4.75

CALCULATOR FOR #4 ONLY

1. Which expression is equivalent to $-5(m - 2)$

A $-5m - 10$ B $-5m - 7$

C $-5m + 10$ D $-5m + 7$

2. Which event is most likely to occur?

A spinning a blue with a spinner that has blue, yellow, red

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3. The temperature outside is -8 degrees. If the temperature dropped by $\frac{1}{2}$ a degree each hour, what would the temperature be after 6 hours?

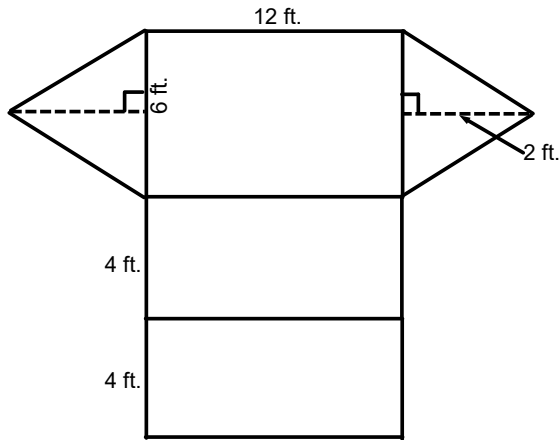
4. Determine the mean of: 4.5, 3.75, 2.87, 1.5, 5, 4.75

CALCULATOR FOR #4 ONLY

Virtual Learning Week 2 - Surface Area

LEQ: How can the surface area of three-dimensional figures be determined?

Activator: How can you determine the total area of the figure shown below?



- 1) Write the formula inside each figure.
- 2) Determine the area of each figure.
- 3) Add the areas together.



LEQ: How can the surface area of three-dimensional figures be determined?

bit.ly/VirtualNerdSA

In 7th grade, you will NOT be given the nets. It is YOUR responsibility to break apart the figure to find the Surface Area.

Topic: Surface Area

Net: flat shape which can be folded up into a three-dimensional solid

Surface Area: total area of the *surface* of a three-dimensional solid

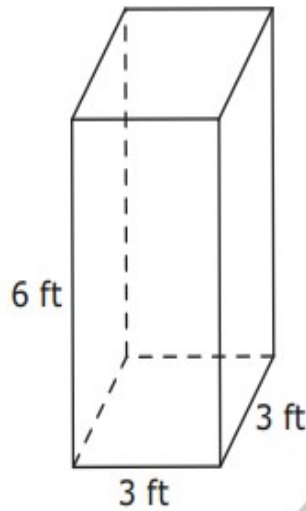
Real-Life Surface Area: Wrapping a present

Complete the chart to determine what shapes make up the following 3-d figures.

	Figure 1	Figure 2	Figure 3	Figure 4
# Squares				
# Triangles				
# Rectangles				

NOTES - Rectangular Prisms

What is the surface area of the figure below?



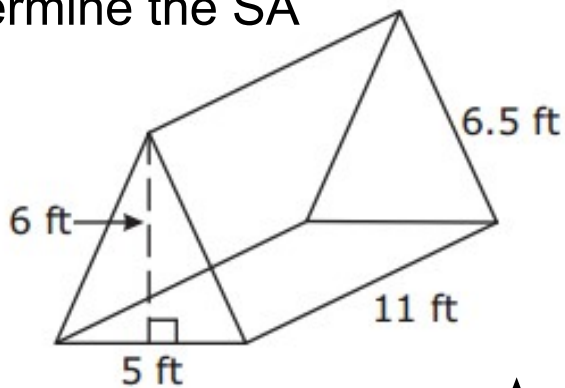
1) List the shapes that make up the figure.

2) Determine the area of each (Write the formulas!!)

3) Add the areas to determine the Surface Area

NOTES - Triangular Prisms

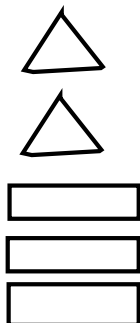
Determine the SA



1) List the shapes that make up the figure.

2) Determine the area of each (Write the formulas!!)

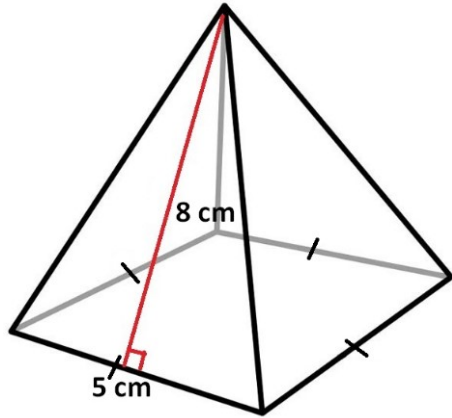
3) Add the areas to determine the Surface Area



★ Be careful! Some of the rectangles have different measures! ★

NOTES - Pyramid Prisms

Determine the surface area:



1) List the shapes that make up the figure.

2) Determine the area of each (Write the formulas!!)

3) Add the areas to determine the Surface Area

Classwork Directions: bit.ly/SA7Day1

- 1.) 9 Questions from a worksheet
- 2.) Show your work on separate page
- 3.) Email your answers or send a picture of your work to your teacher below.

JuliusR.Archer@cms.k12.nc.us

Charles1.Smith@cms.k12.nc.us

Wednesday March 25, 2020

Week 2 Lesson 3

Virtual Lesson #2.3

1. Which expression is equivalent to $-5a + 6b - 12b - 6a$

A $-11a - 6b$ B $11a + 18b$ C $-11a + 18b$ D $11a - 6b$

2. Ashley will roll a fair number cube labeled 1-6. What is the probability that she will roll a number greater than 4?

A $\frac{2}{3}$ B $\frac{1}{3}$ C $\frac{1}{2}$ D $\frac{1}{6}$

3. The temperature outside is 2 degrees. If the temperature drops 2 degrees an hour, what will the temperature be after 8 hours?

4. Determine the mean of: 831, 344, 699, 866, 754, 912, 361, 193

CALCULATOR FOR #4 ONLY



Virtual Learning Week 2 - Surface Area

1. Which expression is equivalent to

$$-5a + 6b - 12b - 6a$$

A $-11a - 6b$ B $11a + 18b$

C $-11a + 18b$ D $11a - 6b$

2. Ashley will roll a fair number cube labeled 1-6. What is the probability that she will roll a number greater than 4?

A $2/3$ B $1/3$

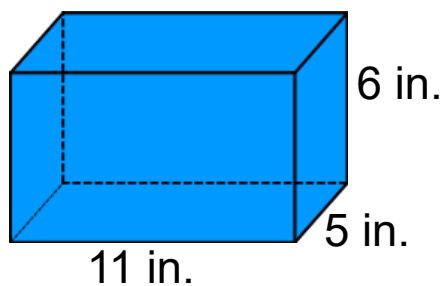
C $1/2$ D $1/6$

3. The temperature outside is 2 degrees. If the temperature drops 2 degrees an hour, what will the temperature be after 8 hours?

4. Determine the mean of: 831, 344, 699, 866, 754, 912, 361, 193

LEQ: How can the surface area of 3-D figures be determined?

Determine the surface area:



$11 \times 5 = 55$

$11 \times 5 = 55$

$5 \times 6 = 30$

$5 \times 6 = 30$

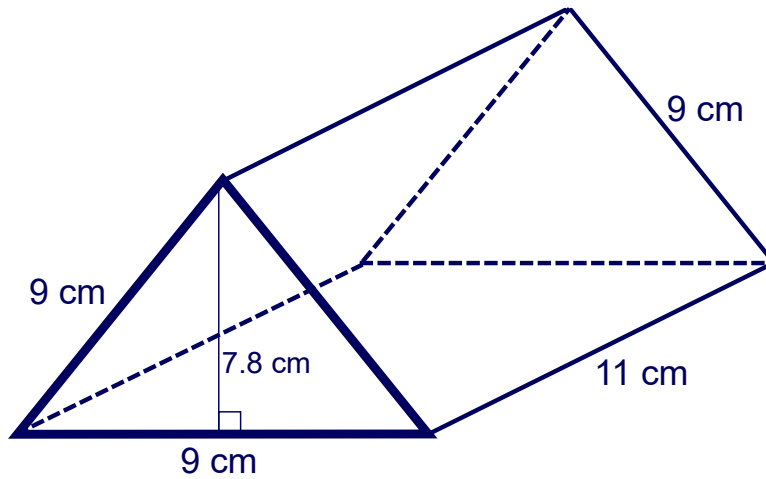
$SA = 170 \text{ in}^2$

Error Analysis

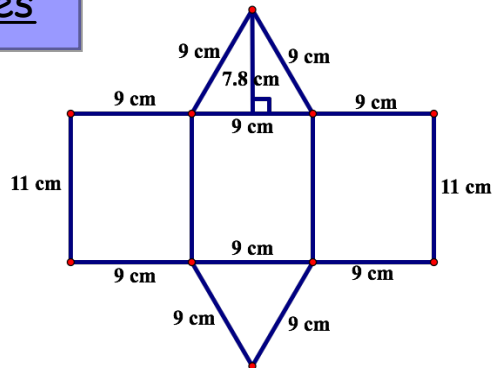
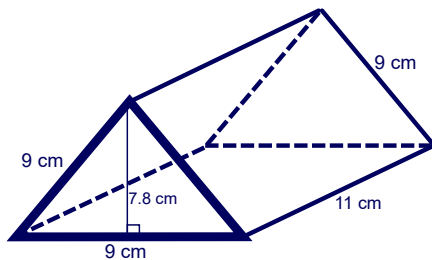
1. Answer the problem correctly
2. Determine the mistake(s) the student made.

Find the Surface Area

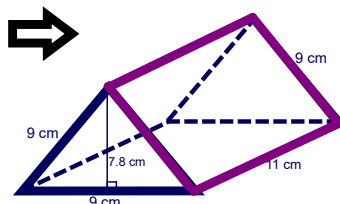
- 1) Break apart the figure
- 2) Find the area of every figure
- 3) Add the areas together



Two Different Strategies



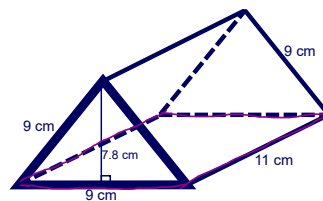
Sides



$$11 \times 9 = 99$$

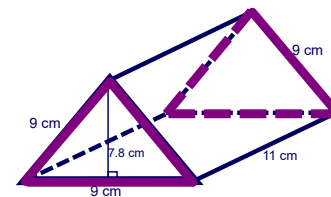
$$11 \times 9 = 99$$

Bottom



$$9 \times 11 = 99$$

Front/Back

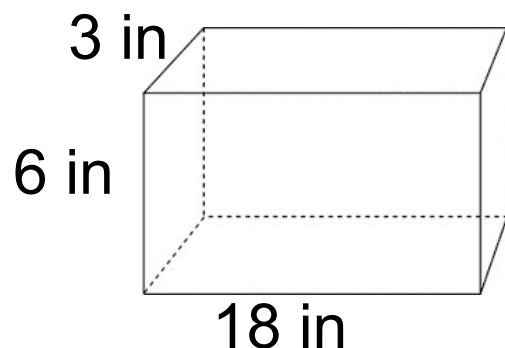


$$\frac{1}{2} \times 7.8 \times 9 = 35.1$$

$$\frac{1}{2} \times 7.8 \times 9 = 35.1$$

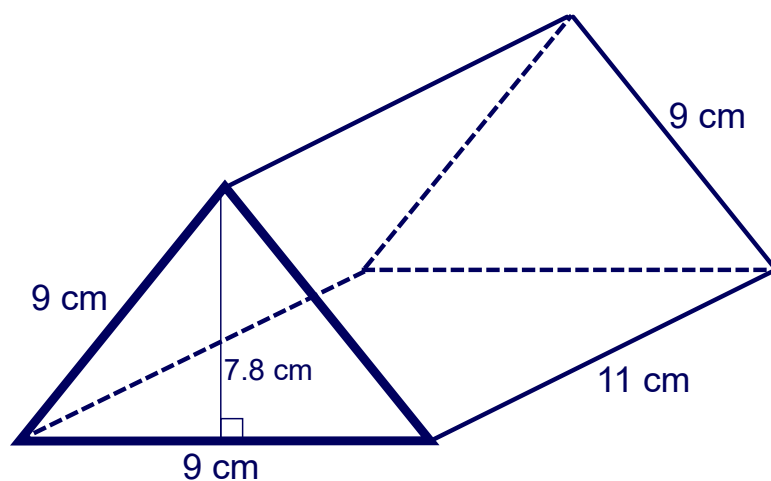
Surface Area: Problem-Solving

The figure below is a step that a builder is installing. If **only the top and the front** are going to be painted, how many square inches of paint will be needed?



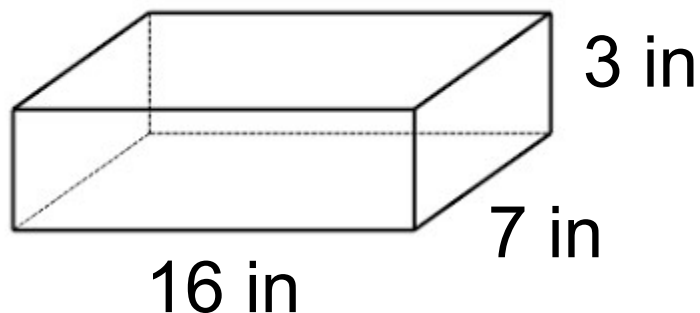
If the builder is going to paint 6 steps in the same way, how much total paint will be used?

A store is going to gift-wrap the present from the previous slide. If wrapping paper costs \$0.06 per inch, how much will the customer pay to have the present wrapped?



Virtual Learning Week 2 - Surface Area

If each edge length of the picture shown below was doubled, what would be the surface area of the polygon?



Do NOT find the surface area and double it, that is not what the question is asking!

ClassWork Directions: **bit.ly/SASolving**

- 1.) 7 Questions
- 2.) Break each 3-D prism apart
- 3.) Show your work for finding each pieces area
- 4.) Any questions email your teacher below:

JuliusR.Archer@cms.k12.nc.us

Charles1.Smith@cms.k12.nc.us

Scores will be posted on PowerSchool tonight or tomorrow morning

Thursday March 26, 2020

Week 2 Lesson 4

Virtual Lesson #2.4

1. Which expression is equivalent to $8a - 12a + 6x - 4x$

A $8ax$ B $4a + 10x$ C $-4a + 10x$ D $2x - 4a$

2. Lisa has a bag of 30 beads to make jewelry

- There are an equal number of orange, green and blue beads

- Lisa chooses a bead at random from the bag

What is the probability that she will choose a green marble?

A $\frac{2}{3}$ B $\frac{1}{3}$ C $\frac{1}{2}$ D $\frac{4}{30}$

3. The temperature in Cleveland was -1 degrees at 6 am. If the temperature increased by 3 degrees an hour, what will the temperature be at 10:00 am?

4. Determine the mean of: 65, 82, 12, 76, 59, 82, 21, 12, 54, 34



Virtual Learning Week 2 - Surface Area

1. Which expression is equivalent to $8a - 12a + 6x - 4x$

A $8ax$ B $4a + 10x$

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4. Determine the mean of: 65, 82, 12, 76, 59, 82, 21, 12, 54, 34

-ClassWork Review Directions:

bit.ly/BasicSA2019

-10 questions

-Show your work on a separate sheet of paper

-Break shapes apart and use your formulas

-Use your notes from this week to help

-Get 7/10, 70% correct and your good for today.

Friday March 27, 2020

Week 2 Lesson 5

Virtual Lesson #2.5

1. Which expression is equivalent to: $-4(x + 3)$

A $-4x + 12$ B $-4x - 1$ C $-4x - 12$ D $-4x + 1$

2. Sean has a jar with 4 red marbles, 3 blue marbles and 5 black marbles. What is the probability that he randomly chooses a blue marble?

A $\frac{1}{3}$ B $\frac{3}{11}$ C $\frac{3}{4}$ D $\frac{1}{4}$

3. The temperature outside was -2 degrees. If the temperature dropped by $\frac{1}{2}$ of a degree every hour for 6 hours, what will the temperature be after 6 hours?

4. Determine the mean of: 43, 32, 56, 65, 44, 87, 67, 98, 91, 37



Virtual Learning Week 2 - Surface Area

1. Which expression is equivalent to:

$$-4(x + 3)$$

A $-4x + 12$ B $-4x - 1$

C $-4x - 12$ D $-4x + 1$

2. Sean has a jar with 4 red marbles, 3 blue marbles and 5 black marbles. What is the probability that he randomly chooses a blue marble?

A $\frac{1}{3}$ B $\frac{3}{11}$

C $\frac{3}{4}$ D $\frac{3}{5}$

3. The temperature outside was -2 degrees. If the temperature dropped by $\frac{1}{2}$ of a degree every hour for 6 hours, what will the temperature be after 6 hours?

4. Determine the mean of: 43, 32, 56, 65, 44, 87, 67, 98, 91, 37

If you need extra help today:

bit.ly/KhanSurface

Walks you through every part of Surface Area,
from basic to more complex. Work is on the
next slide.

ClassWork Directions: **bit.ly/SA7Day2**

-16 questions from worksheet

-#1-5 find area of each piece

-#6-14 break the shapes apart and find the total surface area

-#15-16 word problems draw the out, break them apart, find their surface area