



on May 13th

8 practice days remaining

STAAR Category 3

12 questions on STAAR

7.5(C) solve mathematical and real-world problems involving similar shape and scale drawings

7.9(A) solve problems involving the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids

7.9(B) determine the circumference and area of circles

7.9(C) determine the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles

7.4(E) convert between measurement systems, including the use of proportions and the use of unit rates

7.5(A) generalize the critical attributes of similarity, including ratios within and between similar shapes

7.5(B) describe π as the ratio of the circumference of a circle to its diameter

7.9(D) solve problems involving the lateral and total surface area of a rectangular prism, rectangular pyramid, triangular prism, and triangular pyramid by determining the area of the shape's net

7.11(C) write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships

Area and Volume - **Use your formula chart!!!**

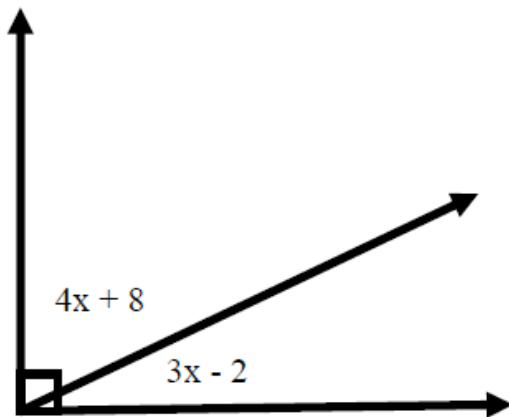
➤ Surface Area and Volume

- ✓ The volume of a pyramid is $\frac{1}{3}$ the volume of a prism if they have congruent bases and heights.
(Remember to divide by 3!)
- ✓ **Lateral** Surface Area: only includes the **sides** (not the bases)
- ✓ Always Write the FORMULA first
- ✓ Plug In
- ✓ Do The Math... Remember **PEMDAS**
 - B = AREA OF THE BASE
 - P = PERIMETER OF THE BASE

➤ You will also be expected to write and solve equations using geometry concepts.

The sum of interior angles in a triangle is 180 degrees. You are expected to know this ☺.

Write and solve the equation to find the angle measurements in the following figures.



What is the value of x ?

$$x = 12^\circ$$

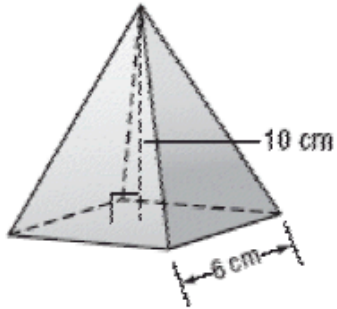
What is the value of each angle?

$$56^\circ ; 34^\circ$$

Example Problem 2:

❖ Edgar was making an Egyptian Pyramid out of clay. How much clay does he need?

Volume of a pyramid: Remember to divide by 3!!



a. 30 cm^3

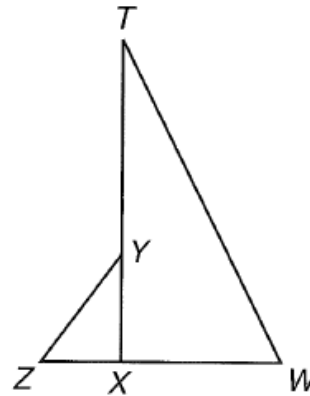
b. 60 cm^3

c. 120 cm^3

d. 360 cm^3

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Triangle XYZ is similar to triangle XTW.



Which equation describes how the triangles are related?

- A $\frac{ZX}{XT} = \frac{XW}{YZ}$
- B $\frac{YX}{TW} = \frac{ZY}{XW}$
- C $\frac{TW}{YZ} = \frac{TX}{YX}$
- D $\frac{TW}{YZ} = \frac{XW}{XY}$

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Which of the following is equal to the ratio of the circumference of a circle to its diameter?

F π

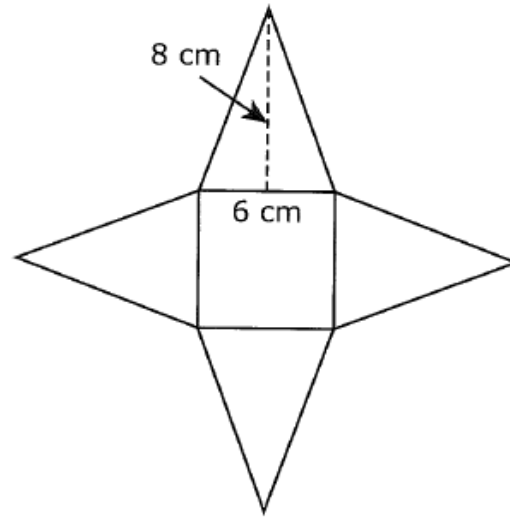
G 2π

H π^2

J $\frac{\pi}{2}$

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The diagram shows a net for a square pyramid.

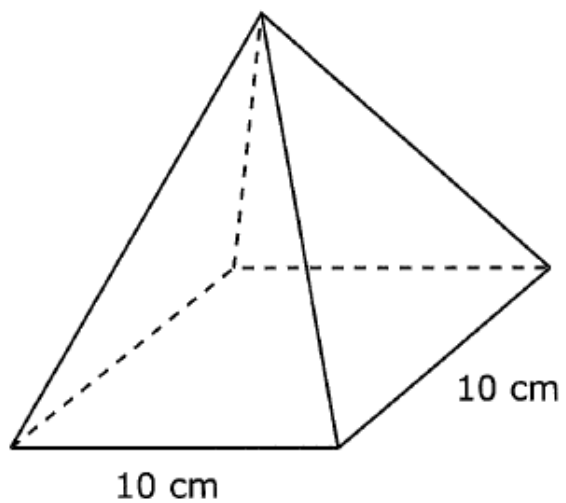


What is the lateral surface area of the pyramid?

- A 192 cm^2
- B 84 cm^2
- C 132 cm^2
- D 96 cm^2

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The square pyramid below has a volume 400 cubic inches.

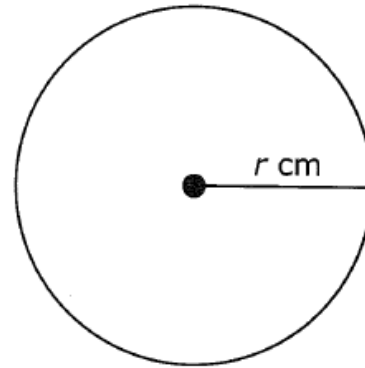


What is the height of the pyramid?

- A** 8 cm
- B** 12 cm
- C** 4 cm
- D** 16 cm

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The circumference of the circle shown below is 5 centimeters.



Which expression is equal to the value of π ?

F $\frac{5}{r}$

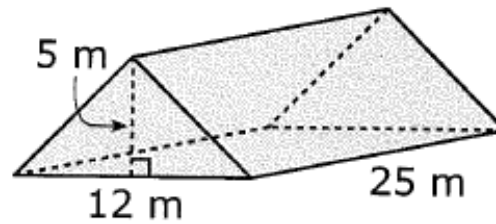
G $\frac{r}{5}$

H $\frac{5}{2r}$

J $\frac{2r}{5}$

18

The loft of a barn has the shape of a triangular prism.



Which of the following is closest to the volume of the loft?

- F** 375 m^3
- G** $1,500 \text{ m}^3$
- H** 750 m^3
- J** $1,050 \text{ m}^3$

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Louie is building a scale model of an airplane, using a scale of 2 inches = 25 feet. If the airplane is 155 feet long, what is the length of the model?

F 6.2 in.

G 15.3 in.

H 8.6 in.

J 12.4 in.

Category 3 Review – on thatquiz

Due by start of class tomorrow

All practice and HW must be completed **ON TIME** for full credit

Yes, it is for a grade!!!