

Geometry

Week of
October 9-13, 2023

General Class Periods 4&5

Week Starts: Chapter 1 Posttest RETEACH

The objective is to use of pythagorean theorem in perimeter calculation and finding area of composite figures from the area of triangles and rectangles.

Monday: No classes as teacher inservice

Tuesday:

PSAT/SAT formula sheet show and sample problem (next slide) Transfer # 8 Area problem from test over to paper in order to give solution steps.

Also transfer to note sheet #26 and #28 to review from test

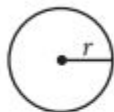
Continue with slides of triangle area/perimeter and complex polygon

PSAT/SAT formula sheet (no calculator section also)

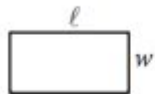
which $f(x)$ is a real number.

<https://www.khanacademy.org/misssion/sat/practice/math>

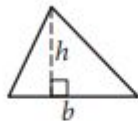
REFERENCE



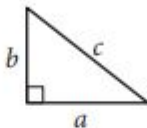
$$A = \pi r^2$$
$$C = 2\pi r$$



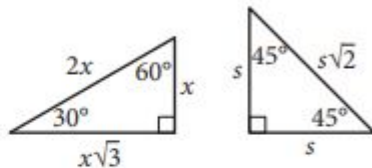
$$A = \ell w$$



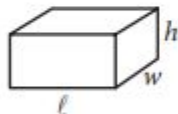
$$A = \frac{1}{2}bh$$



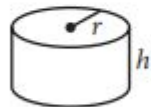
$$c^2 = a^2 + b^2$$



Special Right Triangles



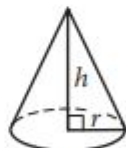
$$V = \ell wh$$



$$V = \pi r^2 h$$



$$V = \frac{4}{3}\pi r^3$$



$$V = \frac{1}{3}\pi r^2 h$$



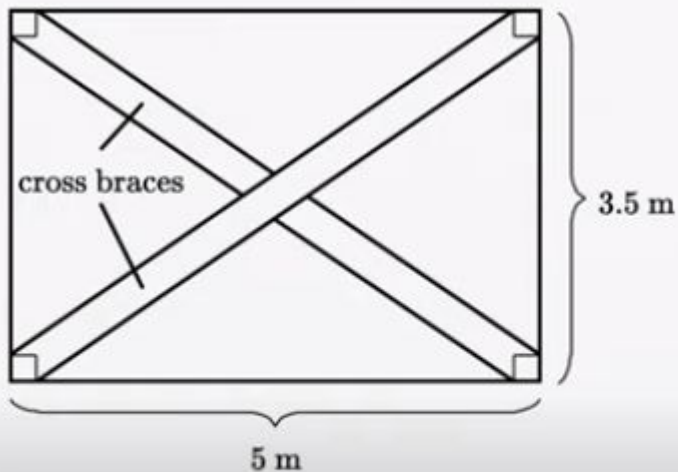
$$V = \frac{1}{3}\ell wh$$

The number of degrees of arc in a circle is 360.

The number of radians of arc in a circle is 2π .

The sum of the measures in degrees of the angles of a triangle is 180.

SAT Sample Problem - after chapter 1

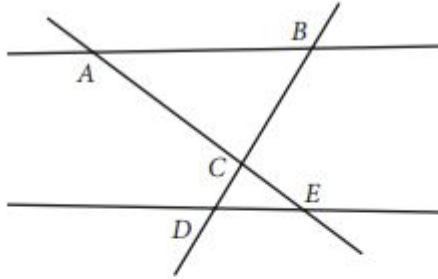


A builder needs to add cross braces to a 3.5 meter (m) by 5 m opening between supports in a building, as shown in the figure above. Which of the following is closest to the length of one of the cross braces?

0:07 / 3:51

CC

SAT problem links to our chapter 3 problem



Note: Figure not drawn to scale.

In the figure above, $\triangle ABC$ is similar to $\triangle EDC$, with $\angle BAC$ corresponding to $\angle CED$ and $\angle ABC$ corresponding to $\angle CDE$. Which of the following must be true?

- A) $\overline{AE} \parallel \overline{BD}$
- B) $\overline{AE} \perp \overline{BD}$
- C) $\overline{AB} \parallel \overline{DE}$
- D) $\overline{AB} \perp \overline{DE}$

Review problem for Tuesday.

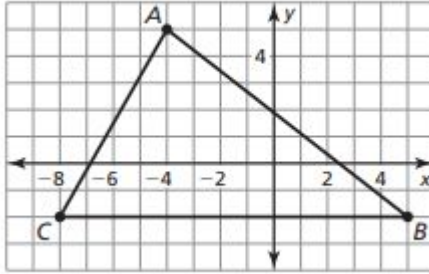
Plot this triangle.

Find the area.

Find the perimeter.

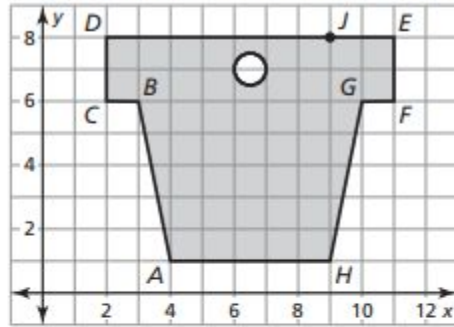
Need Slant length

Use distance formula or pythagorean theorem.



HOMEWORK - complete Tuesday to Thursday

2. The design of a flower pot charm for a charm bracelet is shown below.



- The charm is a polygon. Classify the polygon by the number of sides. State whether the polygon is *convex* or *concave*. Explain your reasoning.
- Find the coordinates of the center of the hole, located at the midpoint of \overline{CE} .
- Identify any congruent segments in the charm.
- Given that $m\angle AHJ = 90^\circ$ and $m\angle JHG \approx 11.3^\circ$, find $m\angle AHG$.
- In an alternate design, points A and H are changed to $A(5, 0)$ and $H(8, 0)$. Graph this design in a coordinate plane.
- The perimeter of each charm is edged in gold. Which design uses less gold? Explain.

Week Continues

Wednesday: (Some out for SAT)

Complete Google Classroom Activity - 5 figures find perimeter and area worksheet

Do not forget to copy and complete the composite figure on previous slide

Thursday: Collect homework on review problem from Tuesday's slide

Complete the fencing problem with the use of the pythagorean theorem

Friday: Finding area of graphed shapes by the subtraction method.

Complete Google classroom activity posted.