

# CP Geometry

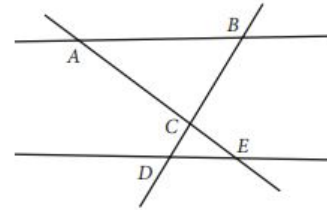
Week of  
October 9-13, 2023  
CP Class Period 3

# Week Starts: PSAT prep and Chapter 2

Monday: No classes as teacher inservice

Tuesday: PSAT Warmup Problem --- Brace support

SAT for 11/12th tomorrow, PSAT for 10th+ graders next Thurs.



Note: Figure not drawn to scale.

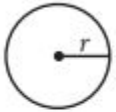
In the figure above,  $\triangle ABC$  is similar to  $\triangle EDC$ , with  $\angle BAC$  corresponding to  $\angle CED$  and  $\angle ABC$  corresponding to  $\angle CDE$ . Which of the following must be true?

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

# PSAT SAT formula sheet

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

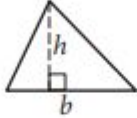
## REFERENCE



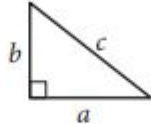
$$A = \pi r^2$$
$$C = 2\pi r$$



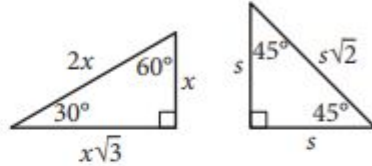
$$A = \ell w$$



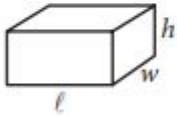
$$A = \frac{1}{2}bh$$



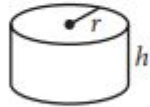
$$c^2 = a^2 + b^2$$



Special Right Triangles



$$V = \ell wh$$



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



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



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



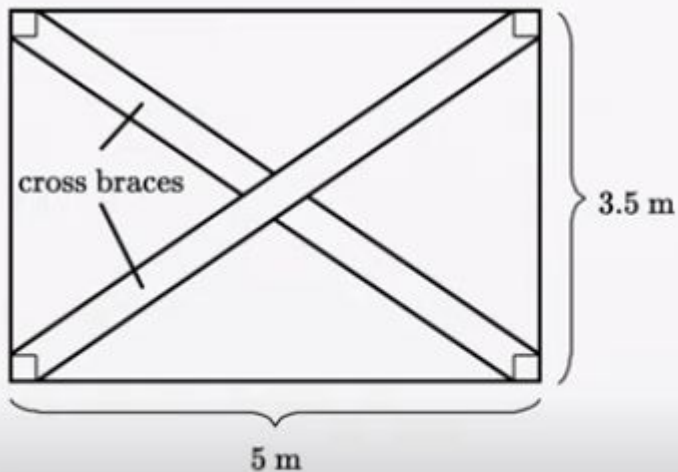
$$V = \frac{1}{3}\ell wh$$

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

The number of radians of arc in a circle is  $2\pi$ .

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

# Tuesday: Chapter 2 Section 1

## Geometry Lesson 2.1: Conditional Statements

**Essential Question: When is a conditional statement true or false?**

**Lesson Objective(s):** Students will write conditional statements.

Students will use definitions written as conditional statements.

Students will write biconditional statements.

Students will make truth tables.

**Previous Learning:** Students will be familiar with the terms *hypothesis* and *conclusion*, but not necessarily as they relate to math. They also have had experience determining whether statements are true or false.

**New Vocabulary:** conditional statement, if-then form, hypothesis, conclusion, negation, converse, inverse, contrapositive, equivalent statements, perpendicular lines, biconditional statement, truth value, truth table

### CC State Standards

HSG-CO-C.9

HSG-CO.C.10

HSG-CO.C.11

HSG-SRT.B.4

Use Student Journal pg.32 Warmup # 1, 10, 12 --- more for PSAT

Use Student Journal pg.33-34 for explaining conditional statements.

Then pgs. 35-38 for notes from dynamic classroom teacher examples added.

# Wednesday - Practice Day 2.1

Complete the student journal examples pg 38

Complete the Practice A and B worksheets

Remember hypothesis  $p$  and conclusion  $q$  with TRUTH TABLE outcomes

conditional  $p \rightarrow q$

converse  $q \rightarrow p$

inverse  $\sim p \rightarrow \sim q$

contrapositive  $\sim q \rightarrow \sim p$

Especially Biconditional existence

# Week Continues

Thursday:

**Geometry Lesson 2.2 – Day 1: Inductive and Deductive Reasoning**  
**Essential Question: How can you use reasoning to solve problems?**

**Lesson Objective(s):** Students will use inductive reasoning.  
Students will use deductive reasoning.

**Previous Learning:** Students have a previous understanding of patterns and finding the next terms. They should also be familiar with the word *conjecture*.

**New Vocabulary:** conjecture, inductive reasoning, counterexample, deductive reasoning

**CC State Standards**

HSG-CO.C.9  
HSG-CO.C.10  
HSG-CO.C.11  
HSG-SRT.B.4

Use student journal pg. 39-40 Warmup on pattern finding

Use student journal pg. 41-43 Notes from Teacher Dynamic Classroom Examples

Friday: Practice Day with Practice A and B in small groups.