

# CP Geometry

Week of  
October 16-20, 2023  
CP Class Period 3

# Week: Chapter 2 Sections 2- 4 and PSAT

## Monday:

### **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

Warmup: Student Journal pg 40 # 2 & 3 complete

Review and continue to pg. 43-44 student journal to finish examples

Start 2.2 Practice A and B ---- due on Friday

Setting up Khan Academy PSAT practice accounts tomorrow

(note 1 student out today for FFA & 4 out Tues for Speech)

## Tuesday --- $\frac{1}{4}$ of students out for Speech


Either using individual student accounts for Khan Academy PSAT or displayed with my teacher account do through some sample PSAT problems.

See next slides for samples also.

Students not participating can work on Practice 2.2 worksheets A & B

# Tuesday - Let's look at the PSAT via Khan Academy or [College Board . org](https://collegeboard.org)

## Full-length PSAT/NMSQT to take on paper

 Google Classroom

Congratulations on taking the initiative to prepare for the PSAT/NMSQT! The format and content of the PSAT/NMSQT is almost the same as the SAT, so a great way to start your practice is to use our [official SAT practice on Khan Academy](#). Not sure what the PSAT/NMSQT® is actually about? Read on!

There are actually three different PSAT exams:

- PSAT 8/9
- PSAT 10
- PSAT/NMSQT

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

# PSAT Math Overview

Type of Math	Number of Questions
Heart of Algebra	16
Problem Solving and Data Analysis	16
Passport to Advanced Math	14
Additional Topics in Math	2

Acceptable ways to grid  $\frac{2}{3}$  are:

The image shows three 12-column grids illustrating acceptable ways to grid the fraction  $\frac{2}{3}$ :

- Grid 1:** Shows the fraction  $2 / 3$  with the digits 2, /, and 3 correctly marked in their respective columns.
- Grid 2:** Shows the decimal  $.666$  with the decimal point and three 6s correctly marked.
- Grid 3:** Shows the decimal  $.667$  with the decimal point and digits 6, 6, and 7 correctly marked.

Answer: 201 – either position is correct

The image shows two 12-column grids illustrating acceptable ways to grid the number 201:

- Grid 1:** Shows the number 201 with the digits 2, 0, and 1 correctly marked in the first three columns.
- Grid 2:** Shows the number 201 with the digits 2, 0, and 1 correctly marked in the last three columns.

**NOTE:** You may start your answers in any column, space permitting. Columns you don't need to use should be left blank.

## No-Calculator Portion

Time allotted	25 minutes
Total questions	17
Multiple-choice questions	10
Grid-in questions	4

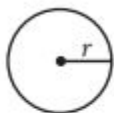
## Calculator Portion

Time allotted	45 minutes
Total questions	31
Multiple-choice questions	27
Grid-in questions	4

# PSAT SAT formula sheet

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

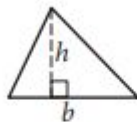
## REFERENCE



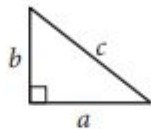
$$A = \pi r^2$$
$$C = 2\pi r$$



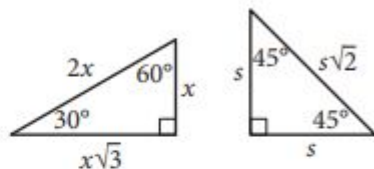
$$A = \ell w$$



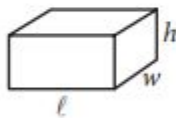
$$A = \frac{1}{2}bh$$



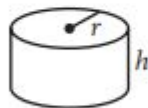
$$c^2 = a^2 + b^2$$



Special Right Triangles



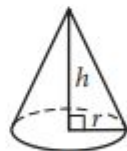
$$V = \ell wh$$



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



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



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



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

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.

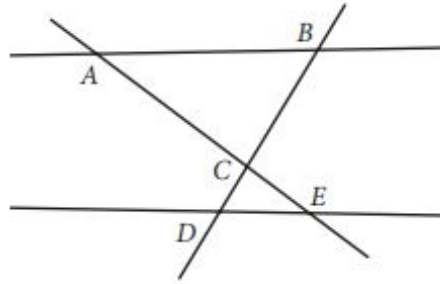
Activat

Review some PSAT  
problems

Note: TUESDAY CLUB  
come for

Bonus points and more  
PSAT math

Prep work for Thursday.

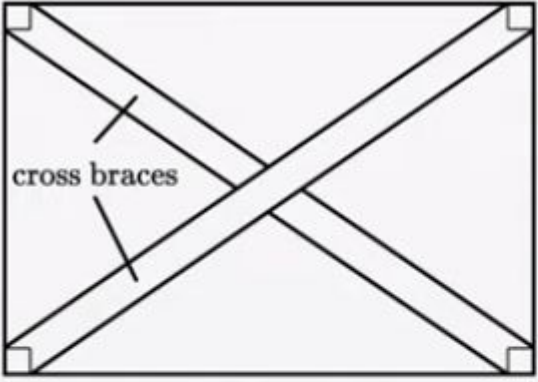


Note: Figure not drawn to scale.

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)  $\overline{AB} \perp \overline{DE}$

# SAT Sample Problem - after chapter 1



The diagram shows a rectangle with a width of 5 m and a height of 3.5 m. Two diagonal lines, labeled "cross braces", connect opposite corners. Right-angle symbols are shown at each of the four corners of the rectangle. Brackets indicate the dimensions: 5 m for the width and 3.5 m for the height.

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



# Samples - Quiz on Khan Academy (4 sets of 10)

QUESTION 1 OF 10

 Report

Non Calculator

$$P = 45,000 - 1,000m$$

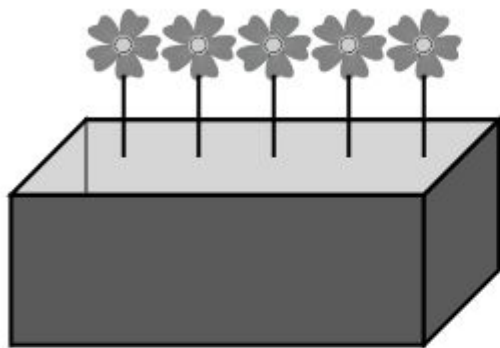
People start to leave the stadium at the end of a football game. The number of people,  $P$ , that are left in the stadium  $m$  minutes after the end of the game is given by the equation above. How many people were present when the game ended but before people started to leave?

- A 25,000 people ...
- B 35,000 people ...
- C 45,000 people ...
- D 55,000 people ...
- E I would be guessing. ...

# Calculator Quiz 4 --- note it has 11 questions.

QUESTION 1 OF 11

 Report



A flower box in the shape of a right rectangular prism is made of thin metal, shown above. The box has length 90 centimeters (cm), width 45 cm, and height 45 cm. The box is 85 percent filled with soil. Each bag of soil holds 1 cubic foot ( $\text{ft}^3$ ), and  $1 \text{ ft}^3$  is approximately 28,316 cubic centimeters ( $\text{cm}^3$ ). How many bags of soil are needed to finish filling the flower box?

# Wednesday

- Watch the STEM Performance video off dynamic classroom on TIGERS.
  - <https://youtu.be/7dvFWTrQ2Nk>
- Complete the Performance Video Worksheet - due Friday
  
- Work on more PSAT problems

## Thursday:

- Over ½ class out for PSAT test --- rest will work on the khan academy PSAT practice work or 2.2 Practice & Performance worksheets

## Friday : Section 2.3

Collect all worksheet to review next week.

Using Student Journal pg. 44 & 45 Exploration #2 complete

Discuss as notes the postulate statements and diagram use

Complete Student Journal pg. 47 & 48 exercises.

Assign Puzzletimes from section 1,2,&3 to complete as Homework.