Pascal's Triangle: Fill in the first 7 rows, then expand a binomial expression using coefficients from the triangle and patterns of exponents.

Binomial Theorem:
$$\binom{n}{r} = \frac{n!}{r!(n-r)!}$$
know how to create coefficients using the binomial formula and patterns of exponents.

QUIZ TOMORROW! (30 points)

2 questions: simplify a factorial expression without a calculator.

1 question: fill in 7 rows of Pascal's Triangle.

1 question: expand expression using triangle coefficients and patterns of exponents.

1 question: expand expression using binomial theorem and patterns of exponents.

2 questions: find a specific term.

$$\binom{n}{r} = \frac{n!}{r!(n-r)!}$$

n = given exponent
r = term # - 1

QUIZ TOMORROW! (30 points)

*You can prepare for the quiz by reading through your notes and working through some of your previous assignments again.

*See Rosenow's website for link to print a new practice worksheet#1-12 from last week. You can solve using Pascal's Triangle and Binomial Theorem.

*Go to Cengage/WebAssign and practice more problems from Friday's online assignment. You can solve using Pascal's Triangle and the Binomial Theorem.

A. Simplify without a calculator $\begin{pmatrix} 8 \\ 3 \end{pmatrix}$

B. Find the 4th term of $\left(xy^2 - 5\sqrt{5} \right)^{10}$

(ok to use calculator, leave in simple radical form.)

hint: $= \begin{pmatrix} 10 \\ ? \end{pmatrix} (xy^2)^? (-5\sqrt{5})^?$

find r using:

$r = \text{term} \# - 1$

Warm-up: add on to the end of yesterday's assignment 12.6 (part 2)

A. Simplify without a calculator $\binom{8}{3}$

$$\frac{8!}{3! \, 5!} = \frac{8 \cdot 7 \cdot 6 \cdot 5!}{3 \cdot 2 \cdot 1 \cdot 5!} = 8 \cdot 7$$
$$= \boxed{56}$$

B. Find the 4th term of $\left(xy^2 - 5\sqrt{5} \right)^{10}$ use $\binom{n}{r}$ ← n

$r = 4 - 1$ $\boxed{\text{so } r = 3}$

(ok to use calculator, leave in simple radical form.)

$$\binom{10}{3} \left(xy^2 \right)^7 \left(-5\sqrt{5} \right)^3 = 120 \cdot x^7 \cdot y^{14} \cdot -125 \cdot 5\sqrt{5}$$

$\dfrac{10!}{3! \, 7!}$ Solve by hand or with calculator

Combine whole numbers

$$= \boxed{-75{,}000 \sqrt{5} \, x^7 y^{14}}$$

*See Google Classroom for the math packet of questions.
*Due by the end of class on Friday.
*QUIZ TOMORROW! (Pascal's Triangle & Binomial Theorem.

### Deborah Rosenow
10:13 PM (Edited 10:28 PM)

You have Wednesday through Friday to work on the 58 SAT math practice questions provided below. The assignment is **due by the end of the period on Friday**.

Fill in your answers on the document provided in class and show ORGANIZED work (or explain your answer) on a separate sheet of paper. Prove/justify that your answer is correct!

Your work will be stapled to the answer document and turned in for homework credit (15 points.) Collaborate with others by discussing possible ways to solve questions! Note: I also attached the answer sheet for absent students.

Reminder: **Quiz on Thursday** covering Pascal's Triangle and Binomial Theorem (will take about half of the class period to complete.)
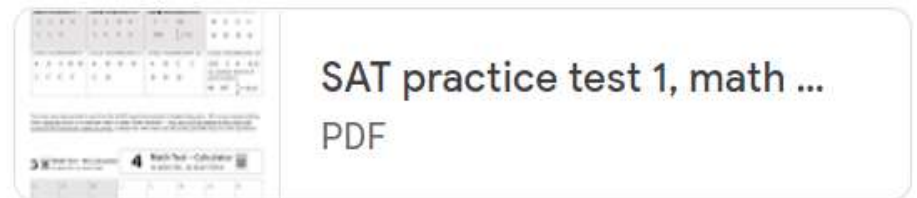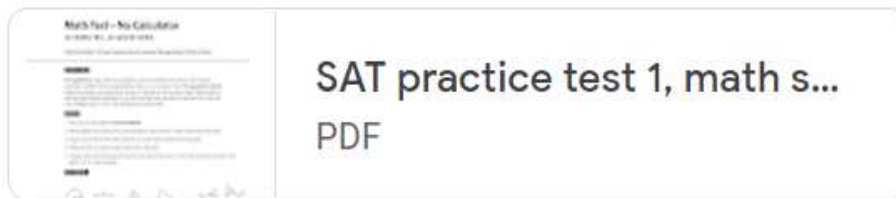
SAT practice test 1, math s...
PDF

SAT practice test 1, math ...
PDF

*See Google Classroom for the math packet of questions.
*Due by the end of class on Friday.
*QUIZ TOMORROW! (Pascal's Triangle & Binomial Theorem.

SAT Math Review

NAME:_____PER:____

CHECK ANSWERS#1-7	CHECK ANSWERS#8-15	CHECK ANSWERS#16-20	CHECK ANSWERS#1-8
A A B B	A A B B	2 7 100	B C C C
C C D	C D D D	1600 $\frac{4}{5}$ or 0.8	D D D D

CHECK ANSWERS#9-17	CHECK ANSWERS#18-23	CHECK ANSWERS#24-30	CHECK ANSWERS#31-38
A A A B B	A B B B	A B C C	1.02 3 6 6.11
C C C C	C D	D D D	any number between 4 and 6 inclusive
			96 107 $\frac{5}{8}$ or 0.625

You have two class periods to work on the 58 SAT questions posted in Google Classroom. Fill in your answers below. Show <u>organized</u> work on a separate sheet of paper (when possible.) <u>Your work will be stapled to this sheet and turned in for homework credit (15 points.)</u> Collaborate with others by discussing possible ways to solve questions!

*See Google Classroom for the math packet of questions.
*Due by the end of class on Friday.
*QUIZ TOMORROW! (Pascal's Triangle & Binomial Theorem.

3 🚫 **Math Test – No Calculator**
25 MINUTES, 20 QUESTIONS

4 **Math Test – Calculator** 🔲
55 MINUTES, 38 QUESTIONS

1.	8.	16.	1.	9.	18.	24.	31.
2.	9.	17.	2.	10.	19.	25.	32.
3.	10.	18.	3.	11.	20.	26.	33.
4.	11.	19.	4.	12.	21.	27.	34.
5.	12.	20.	5.	13.	22.	28.	35.
6.	13.		6.	14.	23.	29.	36.
7.	14.		7.	15.		30.	37.
	15.		8.	16.			38.
				17.			

Current testing acronyms for grades 3-8 and 11:

EAP: Early Assessment Program
(college readiness and placement)

CAASPP: CA Assessment Student Performance and Progress *(report)*

SBAC: Smarter Balanced Assessment Consortium *(test)*

PT: Performance Task *(test)*

CAT: Computer Adaptive Test

11th grade spring Assessment

- A good score on your test can help qualify you to take certain college classes (or be exempt from classes.)

- EAP = Early Assessment Program.

- EAP is one of several measurements used by CSU and Community Colleges to determine placement in math classes.

- Respectable score = less math classes to take = save time and money $.

https://www.khanacademy.org/sat
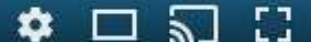**OR go to: satpractice.org**

See links in stream of Google Classroom!

A college readiness partnership

CollegeBoard + KHANACADEMY

© 2016 The College Board.

0:44 / 0:47

SAT & ACT TEST DATES FOR 2021-2022

SAT — Register online at www.collegeboard.org

CollegeBoard

Test dates primarily for seniors

Test dates for juniors

TEST DATE	Registration Deadline	Late Fee Required- $30
August 28, 2021	July 30, 2021	August 17, 2021
October 2, 2021	September 3, 2021	September 21, 2021
November 6, 2021	October 8, 2021	October 26, 2021
December 4, 2021	November 4, 2021	November 23, 2021
March 12, 2022	February 11, 2022	March 1, 2022
May 7, 2022	April 8, 2022	April 26, 2022
June 4, 2022	May 5, 2022	May 25, 2022

You **MUST** use a valid credit card to register online or a fee waiver if you qualify.

*SAT fee… $55.00
*Change information fee…$25.00
*Rush fee…$31.00

*Late fee…$30.00
*Waitlist fee…$53.00
*additional score report fee…$12.00

The **ACT** — Register online at www.actstudent.org

Test dates primarily for seniors

Test dates for juniors

TEST DATE	Registration Deadline	Late Fee Required- $36
September 11, 2021	August 6, 2021	August 20, 2021
October 23, 2021	September 17, 2021	October 1, 2021
December 11, 2021	November 5, 2021	November 19, 2021
February 12, 2022	January 7, 2022	January 21, 2022
April 2, 2022	February 25, 2022	March 11, 2022
June 11, 2022	May 6, 2022	May 20, 2022

You **MUST** use a valid credit card to register online or a fee waiver if you qualify.

*ACT fee…$60.00
*Change information fee…$40.00
*additional score report fee…$16.00

*Late fee…$36.00
*Waitlist fee…$57.00

How soon are scores ready? Official score reports are available to the student via their online portal three weeks after their test date.