



SAT Math Homework

Topic:

**PLUG IN THE ANSWER
(PITA)**



Math Test – No Calculator

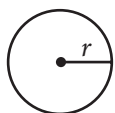
DIRECTIONS

For questions 1-15, solve each problem, choose the best answer from the choices provided, and fill in the corresponding bubble on your answer sheet. For questions 16-20, solve the problem and enter your answer in the grid on the answer sheet. Please refer to the directions before question 16 on how to enter your answers in the grid. You may use any available space in your test booklet for scratch work.

NOTES

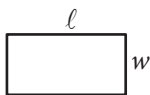
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5. Unless otherwise indicated, the domain of a given function f is the set of all real numbers x for which $f(x)$ is a real number.

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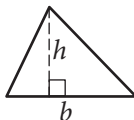


$$A = \pi r^2$$

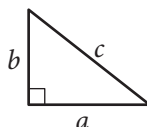
$$C = 2\pi r$$



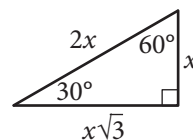
$$A = \ell w$$



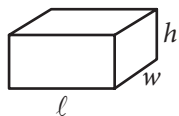
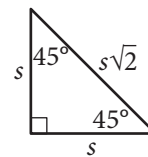
$$A = \frac{1}{2}bh$$



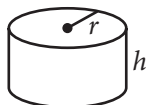
$$c^2 = a^2 + b^2$$



Special Right Triangles



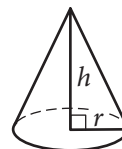
$$V = \ell wh$$



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



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



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



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

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.



From College Board Practice Test #10

Section 3 - Math No Calculator

1

$$2z + 1 = z$$

What value of z satisfies the equation above?

A) -2

B) -1

C) $\frac{1}{2}$

D) 1

6

$$\frac{x^2 - 1}{x - 1} = -2$$

What are all values of x that satisfy the equation above?

A) -3

B) 0

C) 1

D) -3 and -1

14

$$\sqrt{4x} = x - 3$$

What are all values of x that satisfy the given equation?

I. 1

II. 9

A) I only

B) II only

C) I and II

D) Neither I nor II



From College Board Practice Test #9
Section 3 - Math No Calculator

8

$$2ax - 15 = 3(x + 5) + 5(x - 1)$$

In the equation above, a is a constant. If no value of x satisfies the equation, what is the value of a ?

- A) 1
- B) 2
- C) 4
- D) 8

11

$$\frac{x}{x-3} = \frac{2x}{2}$$

Which of the following represents all the possible values of x that satisfy the equation above?

- A) 0 and 2
- B) 0 and 4
- C) -4 and 4
- D) 4



From College Board Practice Test #8

Section 3 - Math No Calculator

7

$$\sqrt{2x+6} + 4 = x + 3$$

What is the solution set of the equation above?

- A) $\{-1\}$
- B) $\{5\}$
- C) $\{-1, 5\}$
- D) $\{0, -1, 5\}$

10

A group of 202 people went on an overnight camping trip, taking 60 tents with them. Some of the tents held 2 people each, and the rest held 4 people each. Assuming all the tents were filled to capacity and every person got to sleep in a tent, exactly how many of the tents were 2-person tents?

- A) 30
- B) 20
- C) 19
- D) 18



Math Test – Calculator

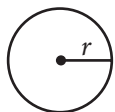
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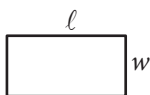
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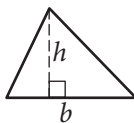


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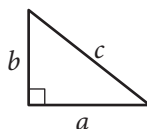
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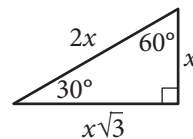
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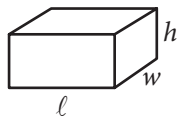
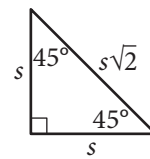
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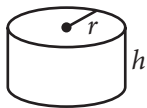
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Special Right Triangles



$$V = \ell wh$$



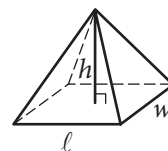
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From College Board Practice Test #10
Section 4 - Math With Calculator

21

$$0.10x + 0.20y = 0.18(x + y)$$

Clayton will mix x milliliters of a 10% by mass saline solution with y milliliters of a 20% by mass saline solution in order to create an 18% by mass saline solution. The equation above represents this situation. If Clayton uses 100 milliliters of the 20% by mass saline solution, how many milliliters of the 10% by mass saline solution must he use?

- A) 5
- B) 25
- C) 50
- D) 100

From College Board Practice Test #8
Section 4 - Math With Calculator

8

$$x + 1 = \frac{2}{x + 1}$$

In the equation above, which of the following is a possible value of $x + 1$?

- A) $1 - \sqrt{2}$
- B) $\sqrt{2}$
- C) 2
- D) 4



From College Board Practice Test #9
Section 4 - Math With Calculator

10

Washington High School randomly selected freshman, sophomore, junior, and senior students for a survey about potential changes to next year's schedule. Of students selected for the survey, $\frac{1}{4}$ were freshmen and $\frac{1}{3}$ were sophomores. Half of the remaining selected students were juniors. If 336 students were selected for the survey, how many were seniors?

- A) 240
- B) 140
- C) 120
- D) 70

13

A cargo helicopter delivers only 100-pound packages and 120-pound packages. For each delivery trip, the helicopter must carry at least 10 packages, and the total weight of the packages can be at most 1,100 pounds. What is the maximum number of 120-pound packages that the helicopter can carry per trip?

- A) 2
- B) 4
- C) 5
- D) 6