



PASS on Paper

Grade 10 Student Worksheets

Mathematics

October 2004

Louisiana Department of Education
Cecil J. Picard
State Superintendent of Education



Louisiana State Board of Elementary and Secondary Education

Ms. Glenny Lee Buquet

PRESIDENT

3rd BESE District

Mr. Walter Lee

VICE PRESIDENT

4th BESE District

Ms. Linda Johnson

SECRETARY-TREASURER

8th BESE District

Ms. Penny Dastugue

1st BESE District

Ms. Louella Givens

2nd BESE District

Ms. Polly Broussard

6th BESE District

Mr. Dale Bayard

7th BESE District

Mr. Edgar Chase

Member-at-Large

Ms. Leslie Jacobs

Member-at-Large

Ms. Mary Washington

Member-at-Large

Ms. Weegie Peabody

Executive Director

For further information, contact

Division of Student Standards and Assessments

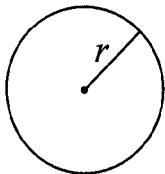
1-877-453-2721

www.louisianaschools.net

GEE 21 Mathematics Reference Sheet

Use the information below to answer questions on the Mathematics test.

Circle

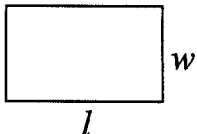


$$\pi \approx 3.14$$

$$\text{Area} = \pi r^2$$

$$\text{Circumference} = 2\pi r$$

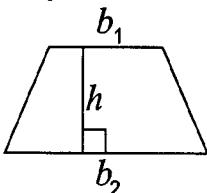
Rectangle



$$\text{Area} = lw$$

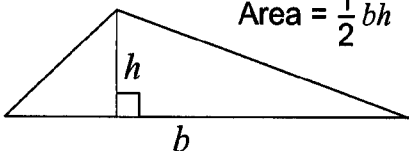
$$\text{Perimeter} = 2l + 2w$$

Trapezoid



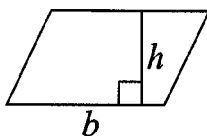
$$\text{Area} = \frac{1}{2}h(b_1 + b_2)$$

Triangle



$$\text{Area} = \frac{1}{2}bh$$

Parallelogram



$$\text{Area} = bh$$

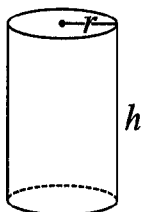
Metric Units of Length

- 1 kilometer = 1000 meters
- 1 centimeter = 0.01 meter
- 1 millimeter = 0.001 meter
- 1 micrometer = 0.000001 meter

U.S. Unit Conversions

- 8 fluid ounces = 1 cup
- 2 cups = 1 pint
- 2 pints = 1 quart
- 4 quarts = 1 gallon
- 16 ounces = 1 pound
- 5,280 feet = 1 mile

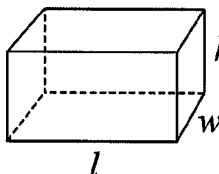
Cylinder



$$\text{Volume} = \pi r^2 h$$

$$\text{Surface Area} = 2\pi r^2 + 2\pi r h$$

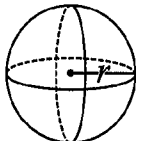
Rectangular Solid



$$\text{Volume} = lwh$$

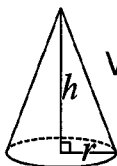
$$\text{Surface Area} = 2wl + 2lh + 2wh$$

Sphere



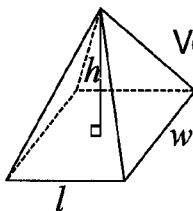
$$\text{Volume} = \frac{4}{3}\pi r^3$$

Cone



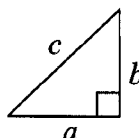
$$\text{Volume} = \frac{1}{3}\pi r^2 h$$

Rectangular Pyramid



$$\text{Volume} = \frac{1}{3}lwh$$

Pythagorean Theorem



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

Cartesian Distance Formula

$$AB = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

(see note below)

Slope Formula

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

(see note below)

NOTE: Point A: (x_1, y_1)
Point B: (x_2, y_2)