

REGENTS COMPETENCY TEST**MATHEMATICS****Tuesday, January 25, 2005 — 9:15 a.m.**

The questions on this test measure your computational skills, your knowledge of mathematical concepts, and your ability to solve mathematical problems. Your answers to these questions must be recorded on the separate answer sheet. Use only a No. 2 pencil on your answer sheet.

When you have completed the test, you must sign the declaration which states that you did not see any of the questions or answers before taking this test and that you have neither given nor received help in answering any of the questions during the test. Your answer sheet cannot be accepted if you fail to sign this declaration.

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO.

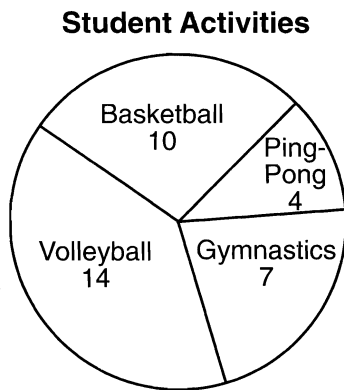
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Part A

Answer all 20 questions in this part. Write your answers on the lines provided in PART A on separate answer sheet. Use only a No. 2 pencil on the answer sheet.

- 1 The graph below shows the number of students in each activity in Mr. Jones' gym class. What is the total number of students in Mr. Jones' class?



- 2 Melissa deposited checks for \$10.11 and \$21.49 in her checking account. What was her total deposit?

3 Add:

$$\begin{array}{r} 354 \\ 163 \\ + 67 \\ \hline \end{array}$$

- 4 A swimming pool needs 12 liters of chlorine each day. How many liters of chlorine does it need in one week?

- 5 Subtract 65 from 104.

- 6 In the numeral 42,635, which digit is in the thousands place?

7 Solve for x : $x + 287 = 596$

8 Divide: $16 \overline{)49,792}$

9 Multiply: $\frac{3}{4} \times \frac{5}{8}$

- 10 Multiply -7 by 8 .

11 Multiply:


$$\begin{array}{r} 3.8 \\ \times .7 \\ \hline \end{array}$$
















12 A rectangle has a length of 9 feet and a width of 6 feet. How many feet are in the perimeter of the rectangle?

13 Al bought a baseball bat for \$15.95, a glove for \$23.53, and a baseball for \$4.28. He gave the clerk \$50.00. How much change should he receive?

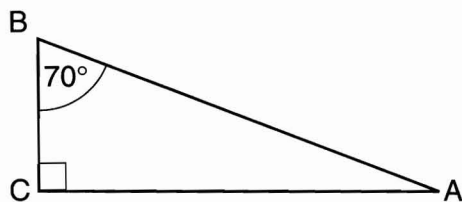
14 The graph below shows the number of hits of certain baseball players during the month of July. How many more hits did Stan get than Miguel?

Hits During July

 = 10 hits

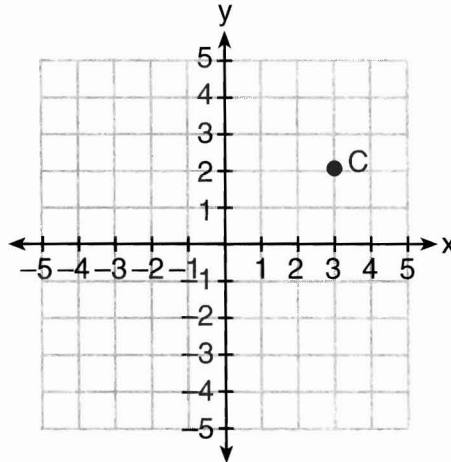
Miguel   
 Paul    
 Stan     
 Gene   

15 In triangle ABC below, angle B is 70° and angle C is 90° . How many degrees are in angle A ?



16 Add: $(+10) + (-3)$

17 On the graph below, the coordinates of point C are $(3,y)$. What is the value of y ?



18 What is the least common denominator of $\frac{1}{3}$, $\frac{3}{4}$, and $\frac{5}{6}$?

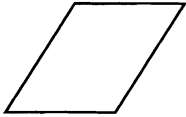
19 Express in simplest form: $5\frac{1}{4} + 6\frac{2}{3}$

20 When Joshua entered his car, the odometer read 23,100.4 miles. When he completed his trip, the odometer read 23,178.2 miles. How many miles did Joshua drive?

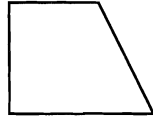
Part B

Answer all 40 questions in this part. Mark your answers in the rows of answer circles provided in PART B on the separate answer sheet. Use only a No. 2 pencil on the answer sheet.

21 Which diagram represents a square?



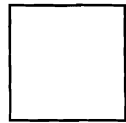
(1)



(3)



(2)



(4)

22 Which numeral represents two thousand one hundred two?

(1) 2,102

(3) 2,100.2

(2) 2,012

(4) 2,120

23 If pencils cost \$0.20 each, what is the greatest number of pencils that Joyce can buy with \$3.00?

(1) 7

(3) 10

(2) 8

(4) 15

24 The city charges \$.50 a half hour to park at a meter. If Chandra parks for 4 hours, how much money will she pay?

(1) \$1.00

(3) \$9.00

(2) \$2.00

(4) \$4.00

25 What is the greatest common factor (GCF) of 12 and 18?

(1) 6

(3) 3

(2) 2

(4) 12

26 Seven pieces of paper, each with one of the letters in the word "ALGEBRA" written on it, are placed in an envelope. If one piece of paper is chosen at random, what is the probability that it will be the letter "A"?

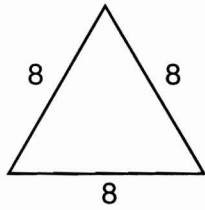
(1) $\frac{1}{7}$

(3) $\frac{3}{7}$

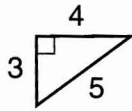
(2) $\frac{2}{7}$

(4) $\frac{5}{7}$

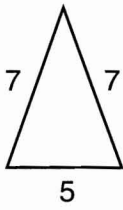
32 Which diagram shows an equilateral triangle?



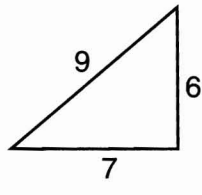
(1)



(3)



(2)



(4)

33 What is the value of 5^3 ?

(1) 15

(3) 125

(2) 53

(4) 555

34 What is 24% of 250?

(1) 600

(3) 6

(2) 60

(4) 0.6

35 Which number is equal to 80%?

(1) 80

(3) 0.80

(2) 8.0

(4) 0.08

36 The property tax rate for a city is \$32.50 per \$1,000 of property value. What is the tax on property valued at \$78,000?

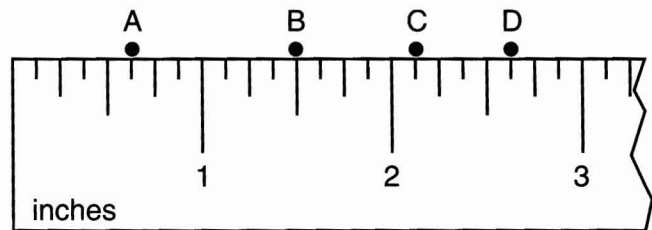
(1) \$416.67

(3) \$2,535.00

(2) \$2,502.50

(4) \$2,567.50

37 On the ruler below, which point indicates $2\frac{5}{8}$ inches?



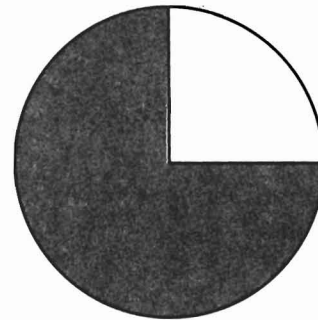
(1) A

(3) C

(2) B

(4) D

38 What percent of the circle below is shaded?



(1) 25%

(3) 75%

(2) 50%

(4) 80%

39 A sofa may be purchased for a \$50.00 downpayment and 12 monthly payments of \$55.00 each. What is the total cost of the sofa?

- (1) \$510.00 (3) \$660.00
 (2) \$600.00 (4) \$710.00

40 The attendance at a basketball game was 12,763. What was the attendance rounded to the nearest hundred?

- (1) 13,000 (3) 12,760
 (2) 12,800 (4) 12,000

41 What is $\frac{3}{4}$ expressed as a percent?

- (1) 75% (3) 3%
 (2) 3.4% (4) 4%

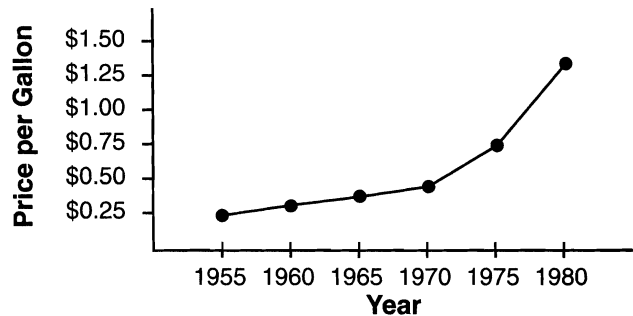
42 Rhonda set her clock radio to play for 50 minutes. If it stopped at 3:30 p.m., when did it start playing?

- (1) 2:20 p.m. (3) 3:40 p.m.
 (2) 2:40 p.m. (4) 4:20 p.m.

43 What is the value of $9 \times 4 - 2 \times 6$?

- (1) 12 (3) 108
 (2) 24 (4) 204

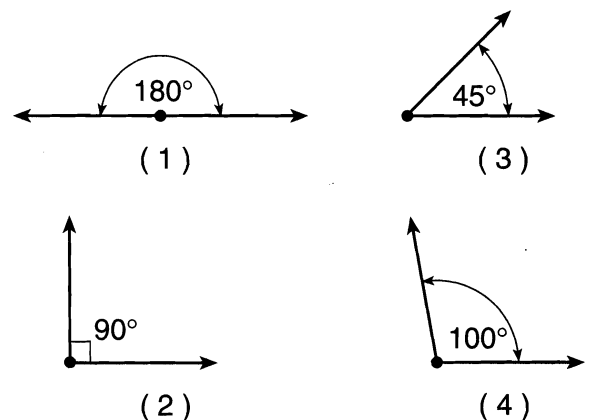
44 The graph below shows the price of gasoline from the years 1955 to 1980.



Between which two years did the price of gasoline increase by the greatest amount?

- (1) 1960 and 1965
 (2) 1965 and 1970
 (3) 1970 and 1975
 (4) 1975 and 1980

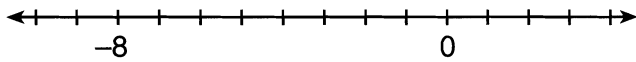
45 Which angle could *never* be in a triangle?



46 What is the remainder when 6,287 is divided by 19?

- (1) 19 (3) 17
 (2) 18 (4) 16

47 Which number is located to the left of -8 on the number line below?



- (1) 8 (3) -6
(2) 0 (4) -10

48 What is the area of a rectangular wall that is 8 feet high and 16 feet long?

- (1) 24 ft^2 (3) 128 ft^2
(2) 48 ft^2 (4) 256 ft^2

49 On a highway trip, Nadeen drove at an average speed of 54 miles per hour. She drove nonstop for $4\frac{1}{2}$ hours. What was the total number of miles she traveled?

- (1) 216 (3) 253
(2) 243 (4) 324

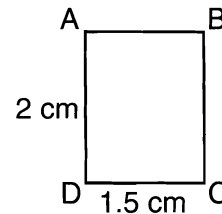
50 Which fraction is expressed in lowest terms?

- (1) $\frac{8}{10}$ (3) $\frac{5}{25}$
(2) $\frac{3}{35}$ (4) $\frac{14}{42}$

51 What is a value of $\sqrt{16}$?

- (1) 8 (3) 16
(2) 2 (4) 4

52 According to the scale drawing below, what is the actual length of side \overline{AD} ?



Scale : 1 cm = 2 m

- (1) 8 m (3) 6 m
(2) 2 m (4) 4 m

53 What is the median of this set of numbers?

27, 31, 32, 40, 40

- (1) 32 (3) 36
(2) 34 (4) 40

54 Which number is a prime number?

- (1) 31 (3) 33
(2) 32 (4) 34

55 Which of these fractions has the greatest value?

(1) $\frac{2}{9}$

(3) $\frac{2}{3}$

(2) $\frac{2}{7}$

(4) $\frac{2}{4}$

58 John earns \$100 a month in his part-time job, plus a 25% commission on his sales. What was John's total salary this month if his sales were \$1,600?

(1) \$1,625

(3) \$400

(2) \$500

(4) \$125

56 Solve for x : $\frac{5}{8} = \frac{x}{24}$

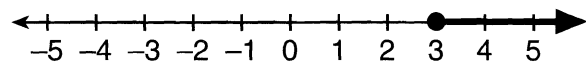
(1) 15

(3) 3

(2) 21

(4) 120

59 Which inequality is represented by the graph below?



(1) $x \geq 3$

(3) $x \geq 5$

(2) $x \leq 3$

(4) $x < 5$

57 Maria has 10 dollars less than Leroy has. If L represents Leroy's amount, how would Maria's amount be represented?

(1) $10 < L$

(3) $L + 10$

(2) $10 - L$

(4) $L - 10$

60 What is the area of a circle with a radius of 3 centimeters?

(1) $3\pi \text{ cm}^2$

(3) $9\pi \text{ cm}^2$

(2) $6\pi \text{ cm}^2$

(4) $12\pi \text{ cm}^2$