

REGENTS COMPETENCY TEST

MATHEMATICS

Thursday, January 26, 1995 — 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 black lead 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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THE STATE EDUCATION DEPARTMENT
ALBANY, NEW YORK 12234**

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Part A

Answer all 20 questions in this part. Write your answers on the lines provided in PART A on the separate answer sheet. Use only a black lead pencil on the answer sheet.

1 Add: 472
 35
 + 3123

7 Divide -18 by 3.

2 Notebooks are on sale for \$0.75 each.
If Tony has \$4.00, what is the greatest
number of notebooks he can buy?

8 When 532 is divided by 25, what is the
remainder?

3 Add: 22.4 + 0.32 + 6.2

9 Multiply: 2,463
 × 35

4 If $m = 24$, what is the value of $3m$?

10 Add: $(-6) + (-3)$

5 Write the numeral for thirty thousand
five hundred eighty.

11 Subtract: 57.18
 26.29

6 Reduce $\frac{12}{30}$ to lowest terms.

12 Solve for x : $3x - 7 = 14$

13 Divide: $34 \overline{)7,004}$

18 Multiply:
$$\begin{array}{r} 6.3 \\ \times 4.8 \\ \hline \end{array}$$

14 Compute: $(3)^4$

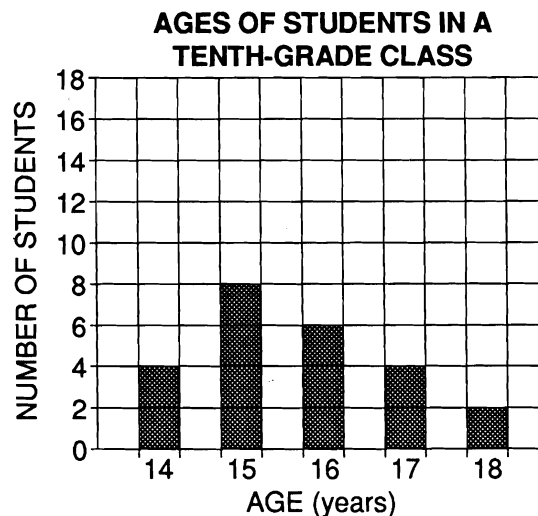
19 Add: $2\frac{1}{2} + 5\frac{3}{8}$

15 What is the greatest common factor of 8 and 20?

20 The bar graph below shows the ages of the students in a 10th-grade class. What is the total number of students in this class?

16 What is the mode of these scores?
75, 65, 60, 95, 75

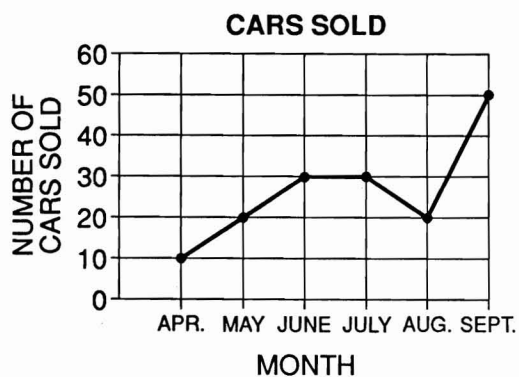
17 The side of an equilateral triangle measures 5 centimeters. How many centimeters are in the perimeter of the triangle?



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 black lead pencil on the answer sheet.

- 21** The graph below shows the number of cars sold by a car dealer each month from April to September.



Which period shows the greatest change in the number of cars sold?

- (1) April–May
- (2) May–June
- (3) July–August
- (4) August–September

- 22** Which is equivalent to 84%?

- (1) 8.40
- (2) 0.84
- (3) 0.084
- (4) 0.0084

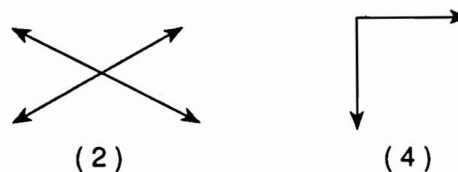
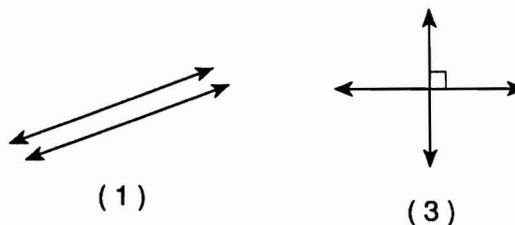
- 23** Each complete tree below represents 10 parks.



What is the total number of parks represented?

- (1) $6\frac{1}{2}$
- (2) 55
- (3) 60
- (4) 65

- 24** Which diagram shows parallel lines?



25 Lauren had \$50. She spent \$4.00 for hair clips and \$8.65 for a belt. How much money did she have left?

- (1) \$62.65 (3) \$27.35
(2) \$37.35 (4) \$12.65

26 What is the value of the 8 in the number 82,763?

- (1) 80 (3) 8,000
(2) 800 (4) 80,000

27 Which fraction has the same value as $5\frac{3}{4}$?

- (1) $\frac{23}{4}$ (3) $\frac{15}{20}$
(2) $\frac{15}{4}$ (4) $\frac{4}{23}$

28 Janet had 7 pennies, 3 nickels, 4 dimes, 3 quarters, and 1 half-dollar in her pocket. What was the total amount of money in her pocket?

- (1) \$1.72 (3) \$2.50
(2) \$1.87 (4) \$2.55

29 What is 3,571 subtracted from 5,600?

- (1) 1,029 (3) 2,029
(2) 1,121 (4) 2,171

30 Michael had \$86.50 in his checking account. If he wrote two checks, each for \$23.00, what was his new balance?

- (1) \$40.50 (3) \$63.50
(2) \$46.00 (4) \$109.50

31 Eduardo's test scores in math are 90, 75, 85, 75, and 75. What is the average (mean) of his test scores?

- (1) 75 (3) 85
(2) 80 (4) 90

32 What is the value of $32 - (6 - 2)$?

- (1) 22 (3) 26
(2) 24 (4) 28

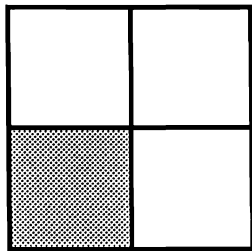
33 Solve for x : $\frac{2}{5} = \frac{x}{20}$

- (1) 40 (3) 8
 (2) 2 (4) 4

34 The probability of an event happening is $\frac{6}{10}$. This statement means that the event is likely to happen

- (1) less than half the time
 (2) half the time
 (3) more than half the time, but not always
 (4) always

35 Which decimal represents the part of the figure below that is shaded?

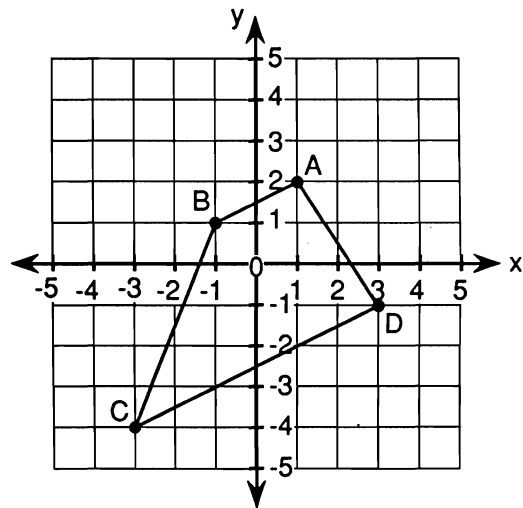


- (1) 0.10 (3) 0.35
 (2) 0.25 (4) 0.40

36 What percent of 100 is 75?

- (1) 75% (3) 0.075%
 (2) 7.5% (4) 7500%

37 On the graph below, what are the coordinates of point C of trapezoid $ABCD$?



- (1) (3,-1) (3) (-1,-3)
 (2) (3,-4) (4) (-3,-4)

38 Shanetta bought a television that cost \$340. If there was an 8% sales tax, how much tax did she pay?

- (1) \$27.20 (3) \$312.80
 (2) \$67.20 (4) \$367.20

39 On a map, 1 centimeter represents 10 kilometers. If the actual distance between two cities is 50 kilometers, how many centimeters apart are they on the map?

- (1) 0.5 (3) 50
(2) 5 (4) 500

40 When rounded to the nearest whole number, which number would be 3?

- (1) 2.44 (3) 3.55
(2) 3.09 (4) 3.99

41 Divide: $9 \overline{)0.081}$

- (1) 0.009 (3) 0.9
(2) 0.09 (4) 9

42 A math club meeting is attended by 19 girls and 17 boys. What is the ratio of the number of girls to the total number of students?

- (1) $\frac{19}{17}$ (3) $\frac{19}{36}$
(2) $\frac{17}{19}$ (4) $\frac{17}{36}$

43 Which expression represents "five increased by the product of four and x "?

- (1) $5 - 4x$ (3) $5 + \frac{4}{x}$
(2) $4x - 5$ (4) $5 + 4x$

44 Which number is less than -6 ?

- (1) $+8$ (3) $+3$
(2) -8 (4) -3

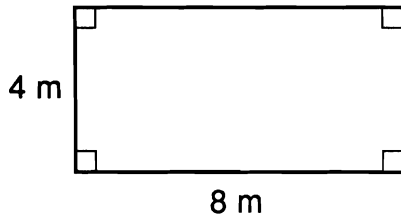
45 Charlene bought a computer. She made a downpayment of \$700 and made 12 monthly payments of \$126 each. What was the total cost of the computer?

- (1) \$826 (3) \$2,212
(2) \$1,512 (4) \$8,526

46 Gene received \$38.25 for 9 hours of work. What was Gene's hourly wage?

- (1) \$4.25 (3) \$29.25
(2) \$4.52 (4) \$344.25

47 What is the number of square meters in the area of the rectangle below?



- (1) 12 (3) 32
(2) 24 (4) 144

48 What is the best estimate for the length of a baseball bat?

- (1) 1 kilometer (3) 1 centimeter
(2) 1 meter (4) 1 millimeter

49 Which fraction has the largest value?

- (1) $\frac{1}{3}$ (3) $\frac{1}{5}$
(2) $\frac{1}{4}$ (4) $\frac{1}{6}$

50 A bill for dinner at the Family Restaurant is \$23. A 15% tip for the waiter would amount to

- (1) \$3.45 (3) \$4.45
(2) \$3.65 (4) \$4.65

51 If cooking a turkey takes 3 hours and 45 minutes, what is the latest time the turkey can be put into the oven so that it is done by 6:00 p.m.?

- (1) 3:30 p.m. (3) 2:30 p.m.
(2) 3:15 p.m. (4) 2:15 p.m.

52 Which is *not* a prime number?

- (1) 5 (3) 25
(2) 11 (4) 29

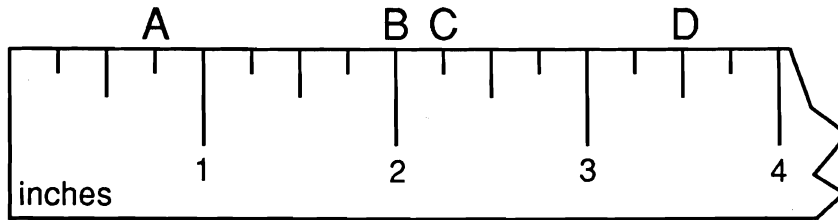
53 The local property tax is \$200 per \$1,000 of assessed value. How much tax must be paid on property that has an assessed value of \$9,000?

- (1) \$1,800 (3) \$9,200
(2) \$8,800 (4) \$18,000

54 When purchasing an electric drill, Lu found that the regular price of \$46.80 was marked 25% off. What was the sale price?

- (1) \$11.70 (3) \$25.10
(2) \$21.80 (4) \$35.10

55 Part of a ruler is shown below.



Which letter marks $\frac{3}{4}$ inch?

- (1) A (3) C
 (2) B (4) D

56 The product of $2\frac{3}{5}$ and $1\frac{1}{3}$ is

- (1) $1\frac{2}{15}$ (3) $2\frac{14}{15}$
 (2) $2\frac{7}{15}$ (4) $3\frac{7}{15}$

59 Subtract: $4\frac{3}{8}$

$$\underline{2\frac{3}{4}}$$

- (1) $1\frac{5}{8}$ (3) $2\frac{3}{8}$
 (2) $1\frac{7}{8}$ (4) $2\frac{5}{8}$

57 If 5 candy bars cost \$1.25, what is the cost of 30 candy bars?

- (1) \$6.25 (3) \$12.50
 (2) \$7.50 (4) \$37.50

60 The formula for the circumference of a circle is $C = 2\pi r$. What is the circumference of a circle whose radius is 4? (Use $\pi = 3.14$)

- (1) 50.24 (3) 12.56
 (2) 25.12 (4) 8

58 How many meters are equal to 720 centimeters?

- (1) 7,200 (3) 7.2
 (2) 72 (4) 0.72