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:
$$\begin{array}{r} 4679 \\ 46 \\ +\ 714 \\ \hline \end{array}$$

2 Subtract:
$$\begin{array}{r} 971 \\ -\ 381 \\ \hline \end{array}$$

3 During a game, Rosie gained 19 points, lost 9 points, gained 10 points, and lost 6 points. How many points did she have at the end of the game?

4 Write the numeral: one thousand six hundred forty-three and nine-tenths.

5 Solve for x: $x + 257 = 382$

6 Divide: $43\overline{)1591}$

7 From 10.56 subtract 7.4.

8 An airplane traveled 1545 miles in 3 hours. What was its average speed in miles per hour?

9 What is the value of $2(3 + 7)$?

10 Multiply:
$$\begin{array}{r} 604 \\ \times\ 59 \\ \hline \end{array}$$

11 Multiply: 17.2×0.24

12 Divide: $-63 \div 7$

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

14 Divide: $0.32\overline{)3.296}$

15 Add: $34 + 120.75 + 5.6$

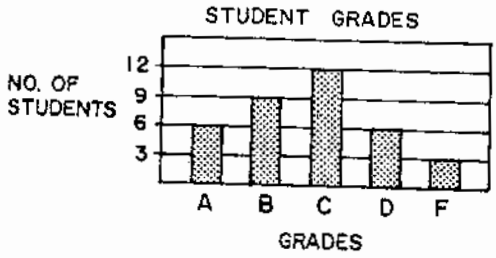
16 Divide: $26.73 \div 10$

17 Find the value of $2a + 3b$ when $a = 2$ and $b = 3$.

18 Express 0.35 as a fraction in *lowest terms.*

19 Add: $\frac{2}{5} + \frac{3}{10}$

20 The graph below shows the distribution of student grades in a class. What is the total number of students in the class?



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 Kim's bank account has a balance of $423.66. She makes a withdrawal of $35.00 and a deposit of $45.21. What is her new balance?

(a) $10.21
(b) $413.45
(c) $433.87
(d) $468.87

22 Oranges cost 22 cents each. José buys 15 oranges and gives the cashier a $5 bill. How much change should he receive?

(a) $0.70
(b) $1.70
(c) $3.30
(d) $4.78

23 According to the chart below, how many seconds faster was East Germany's time than the United States' time?

WOMEN'S 400-METER RELAY OLYMPIC TIMES

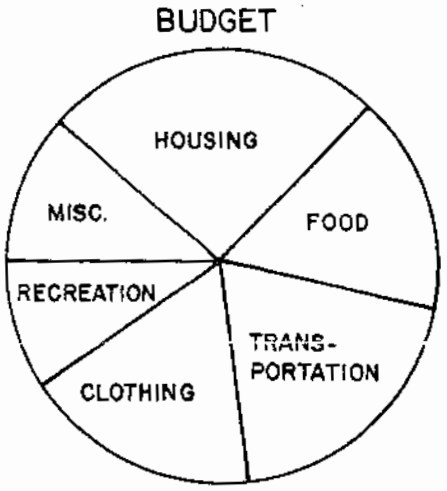
East Germany	42.55 seconds
United States	42.80 seconds
France	42.81 seconds

(a) 0.25
(b) 0.75
(c) 2.50
(d) 25.00

24 The measure of the length of a new pencil is closest to

(a) 20 liters
(b) 2 kilometers
(c) 20 centimeters
(d) 2 millimeters

25 The graph below shows how the average American family spends its income. Which statement is supported by the graph?



(a) The least amount of money is spent on transportation.
(b) The largest amount of money is spent on food.
(c) About 50% of the family's income is spent on clothing.
(d) About 25% of the family's income is spent on housing.

26 On a map, 1 centimeter represents 20 kilometers. How many centimeters on the map would represent 100 kilometers?

(a) 1
(b) 5
(c) 80
(d) 120

27 When written as a decimal, 14% is equivalent to

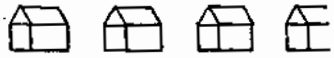
(a) 0.14
(b) 1.4
(c) 14.0
(d) 1400.0

28 In the picture graph shown below, each house represents 1000 houses. How many more houses are being built in Area *B* than in Area *C*?

HOUSES BEING BUILT

AREA A 

AREA B 

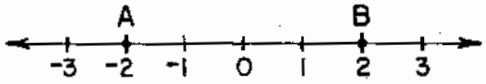
AREA C 

(a) 1000
(b) 500
(c) 3500
(d) 4000

29 Which number is 20% of 10?

(a) 1
(b) 2
(c) 10
(d) 20

30 What is the distance from *A* to *B* on the number line below?



(a) 6 units
(b) 2 units
(c) 3 units
(d) 4 units

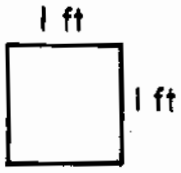
31 Solve for x: $\frac{x}{12} = \frac{8}{3}$

(a) 32
(b) 2
(c) 3
(d) 8

32 A computer laboratory has 31 student workstations. Each workstation costs \$875. What is the best approximation of the cost of this computer laboratory?

(a) \$844
(b) \$906
(c) \$2700
(d) \$27,000

33 John wants to install a tile floor in his kitchen using tiles like the one shown below. How many tiles will he need if his kitchen is 10 feet long and 9 feet wide?



(a) 18
(b) 36
(c) 45
(d) 90

34 Which is the value of 2×10^3?

(a) 20
(b) 60
(c) 2000
(d) 8000

35 What is the value of x in the equation $4x - 5 = 15$?

(a) 5
(b) 2.5
(c) 20
(d) 80

36 What is the median of the following group of numbers?

$-2, -1, 0, +1, +2, +3, +7$

(a) $+1$
(b) $+5$
(c) $+9$
(d) 0

37 A worker is paid \$6.00 per hour for the first 40 hours and \$9.00 per hour for each additional hour beyond 40 hours. What would be the worker's pay for 50 hours' work?

(a) \$300
(b) \$330
(c) \$450
(d) \$600

38 The numbers 1 through 75 each appear on one of 75 balls. What is the probability that the first ball selected at random will have the number 50 on it?

(a) $\frac{1}{75}$
(b) $\frac{1}{50}$
(c) $\frac{75}{50}$
(d) $\frac{50}{75}$

39 Which mathematical sentence represents the following problem?

Carl had 16 pounds of seed. He used $\frac{1}{2}$ pound of it. How much was left?

(a) $\frac{1}{2} \times 16 = x$
(b) $\frac{1}{2} \div 16 = x$
(c) $16 + \frac{1}{2} = x$
(d) $16 - \frac{1}{2} = x$

40 A television set that usually sells for \$400 is on sale at 25% off. What is the sale price?

(a) \$100
(b) \$200
(c) \$300
(d) \$500

41 Which integer has the *least* value?

(a) -1
(b) -2
(c) 0
(d) -5

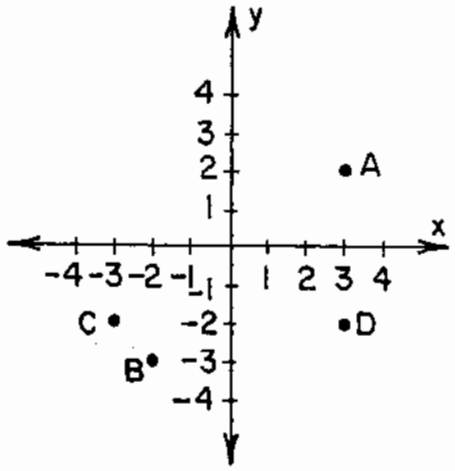
42 Multiply: $\frac{2}{7} \times 2\frac{1}{3}$

(a) $\frac{4}{7}$
(b) $\frac{2}{3}$
(c) $2\frac{2}{21}$
(d) $2\frac{3}{10}$

43 A basketball team played 25 games and won 22 of them. What percent of the games did they win?

(a) 3%
(b) 12%
(c) 22%
(d) 88%

44 On the graph below, which point has coordinates (–3,–2)?



(a) *A*
(b) *B*
(c) *C*
(d) *D*

45 The diameter of a circle is 18 centimeters. How long is the radius?

(a) 56.52 cm
(b) 36 cm
(c) 9 cm
(d) 4.5 cm

46 Which decimal has the greatest value?

(a) 0.09
(b) 0.089
(c) 0.091
(d) 0.1

47 The distance from New York City to Los Angeles is 2947 miles. What is the distance rounded to the nearest hundred miles?

(a) 2900
(b) 2940
(c) 2950
(d) 3000

48 The first period of the school day begins at 8:35 a.m. The fourth period begins 2 hours and 40 minutes later. At what time does the fourth period begin?

(a) 10:15 a.m.
(b) 11:05 a.m.
(c) 11:15 a.m.
(d) 11:20 a.m.

49 Shirts cost $7.00, pants cost $12.00, and jackets cost $25.00. Fred has $100.00 to buy 1 jacket, 2 pairs of pants, and some shirts. What is the greatest number of shirts he can buy?

(a) 5
(b) 7
(c) 9
(d) 14

50 The perimeter of a square is 64 centimeters. What is the length of a side?

(a) 8 cm
(b) 16 cm
(c) 32 cm
(d) 60 cm

51 Which is *not* a composite number?

(a) 27
(b) 2
(c) 33
(d) 49

52 Maria purchased a bicycle for \$95 and a suitcase for \$48. The sales tax rate is 7%. What is the sales tax on her total purchases?

(a) \$7.00
(b) \$10.01
(c) \$143.07
(d) \$153.01

53 Subtract:

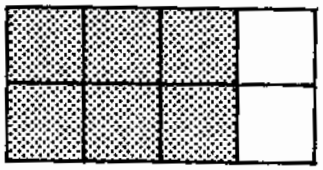
$$\begin{array}{r} 12 \\ -\ 2\frac{1}{3} \\ \hline \end{array}$$

(a) $10\frac{2}{3}$
(b) $10\frac{1}{3}$
(c) $9\frac{2}{3}$
(d) $9\frac{1}{3}$

54 If 6 ears of corn cost \$0.78, what will 2 ears of corn cost?

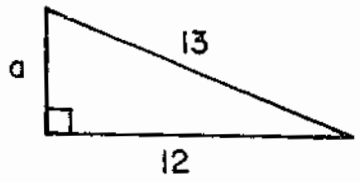
(a) \$0.13
(b) \$0.26
(c) \$0.39
(d) \$1.56

55 What percent of the rectangle below is shaded?



(a) 6%
(b) 8%
(c) 68%
(d) 75%

56 In the right triangle below, one leg measures 12 and the hypotenuse measures 13. What is the measure of leg a? (Use the Pythagorean theorem, $a^2 + b^2 = c^2$.)



(a) 1
(b) 2
(c) 5
(d) 25

57 Two angles of a triangle measure 40 degrees and 65 degrees. What is the measure of the third angle?

(a) 65°
(b) 75°
(c) 85°
(d) 255°

58 What is the least common denominator of $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{8}$?

(a) 8
(b) 2
(c) 16
(d) 4

59 Using the formula $C = 2\pi r$, find the circumference of a circle whose radius is 7. (Use $\pi = 3.14$)

(a) 15.70
(b) 21.98
(c) 43.96
(d) 153.86

60 Patrick wishes to buy a robot. A store offers him two choices of payment plans. He can pay \$1580 in cash, or he can make a \$600 downpayment and 48 monthly payments of \$22 each. How much money will Patrick save if he chooses to pay cash?

(a) \$24
(b) \$92
(c) \$76
(d) \$100