GED Posttest Part 1

You may use a calculator for questions on this part of the test.

1. The ingredients in each pound of Swan's Mixed Nuts are listed in the table below.

Swan's Mixed Nuts
(ingredients by weight in a 1-pound mixture)

Peanuts	0.4 lb
Filberts	0.125 lb
Pecans	0.125 lb
Cashews	0.25 lb
Other	

What part of a pound is represented by the word *Other* on the table?

① 0.1
② 0.2
③ 0.25
④ 0.35
⑤ Not enough information is given.

2. An engineer is designing a support beam for a church steeple. She determines that the weight of the beam (in hundreds of pounds) is given by the expression:

$$\text{Weight} = 3 \times (5 - 2)^2 + \sqrt{5^2 - 3^2}$$

What is the weight of the beam?

① 400 pounds
② 900 pounds
③ 1,400 pounds
④ 2,300 pounds
⑤ 3,100 pounds

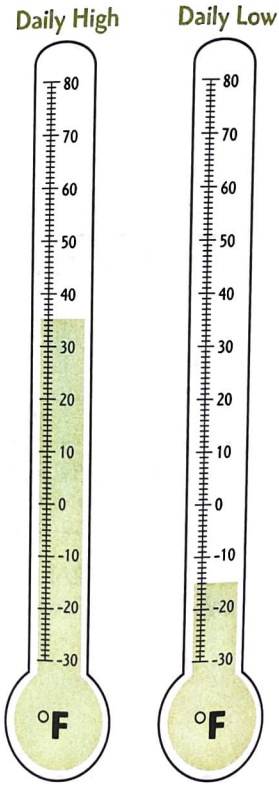
3. Yann earns *time and three quarters* for each hour of overtime he works on Saturday. His overtime pay rate is found by multiplying his regular pay rate of $10.40 by 1.75.

How much will Yann earn on a Saturday if he works a regular 8-hour shift and 2.5 hours of overtime?

① $92.90
② $101.80
③ $128.70
④ $145.60
⑤ $191.10

4. The two thermometers show the daily high and low temperatures for a winter day in Chicago. What is the difference between the high and low temperatures?

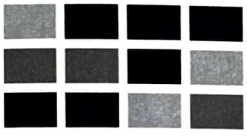
① 15°F
② 20°F
③ 32°F
④ 50°F
⑤ 65°F



5. Mary Lou's favorite recipe for corn chowder calls for $\frac{1}{3}$ cup of cream. To have enough for each guest at her party, Mary Lou wants to make 8 times as much as a single recipe. How much cream does she need?

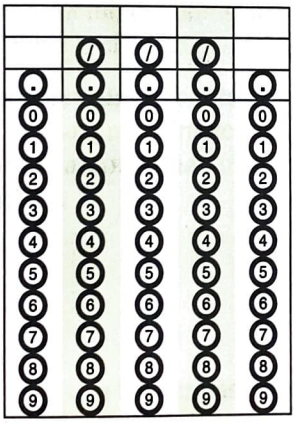
① $2\frac{2}{3}$ cups
② 2 cups
③ $1\frac{3}{4}$ cups
④ $1\frac{2}{3}$ cups
⑤ $1\frac{1}{2}$ cups

6. At Alonzo's Radio, the best-selling radio is available in two colors: dark gray and silver. Shown below are the radios left in stock.

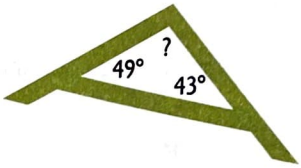


What percent of these radios are dark gray ■?

Mark your answer in the circles in the grid.



7. The walking paths in Central Park meet in a triangle around the play area.



Which expression gives the measure of the third angle in this triangle?

① $180° + (49° + 43°)$
② $180° - (49° + 43°)$
③ $90° - (49° + 43°)$
④ $90° + (49° - 43°)$
⑤ $360° - (49° + 43°)$

8. Maximum recommended heart rate during strenuous exercise for adults between the ages of 25 and 65 is given by the equation:

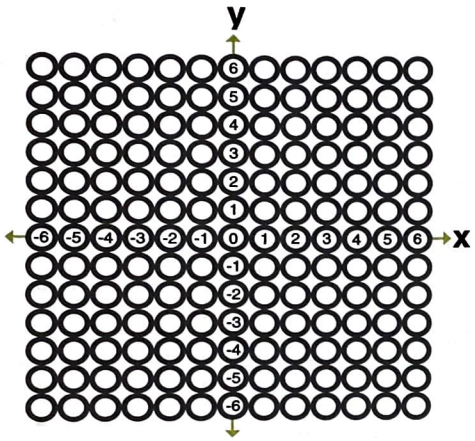
$M = 195 - (n - 25)$
where M = maximum heart rate
and n = age in years

How does the recommended maximum heart rate *(M)* change over a 10-year period for a woman who begins an exercise program in her 30s?

① decreases 5 beats per minute
② decreases 10 beats per minute
③ increases 5 beats per minute
④ increases 10 beats per minute
⑤ stays the same

9. The point (4,1) is a point on a line defined by the equation $y = 2x - 7$. What point on this line has an x-value of 3?

Mark your answer on the coordinate plane grid below.



Problem 10 is based on the following table.

Mia's Pizza Shop

Sale Item	Original Price	Sale Price
Large Pizza	$18.00	$16.00
Medium Pizza	$14.00	$11.50
Small Pizza	$10.00	$7.50
Single Pizza	$6.50	$5.00

10. Which expression shows how to determine the percent discount being offered on medium pizzas?

① $\frac{\$11.50 - \$2.50}{\$14.00} \times 100\%$

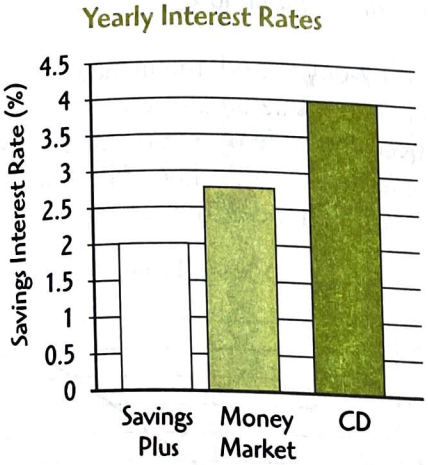
② $\frac{\$14.00 - \$11.50}{\$11.50} \times 100\%$

③ $\frac{\$14.00 - \$11.50}{\$25.50} \times 100\%$

④ $\frac{\$14.00 - \$11.50}{\$2.50} \times 100\%$

⑤ $\frac{\$14.00 - \$11.50}{\$14.00} \times 100\%$

Problem 11 refers to the graph below.



11. A customer of Evergreen Bank plans to place $4,000 in a savings account for a period of 6 months. The bank offers 3 savings plans:

- In the Savings Plus plan, money can be withdrawn at any time without penalty.
- In the Money Market plan, interest is earned only for full months at a time.
- In the CD (certificate of deposit) plan, money must be left for a full 6 months or an early withdrawal fee is charged.

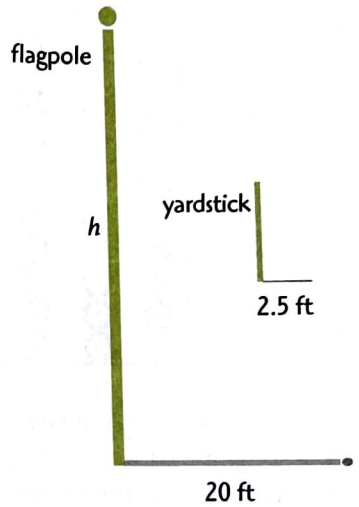
If the customer's money remains deposited for the full 6 months, how much more interest would be earned in a CD account than in a Savings Plus account?

① $20 ④ $60
② $24 ⑤ $80
③ $40

12. The storage compartment of a freezer has a volume of 22.5 cubic feet. If the height of the storage compartment is 5 feet, which could be its length and width?

① length = 2.75 ft; width = 2 ft
② length = 2.4 ft; width = 2.1 ft
③ length = 2.5 ft; width = 2 ft
④ length = 2.25 ft; width = 2 ft
⑤ length = 2.25 ft; width = 2.5 ft

13. Manuel measures the length of the shadow of a flagpole. At the same time of day, he also measures the length of the shadow of a yardstick. Manuel's measurements are shown below.

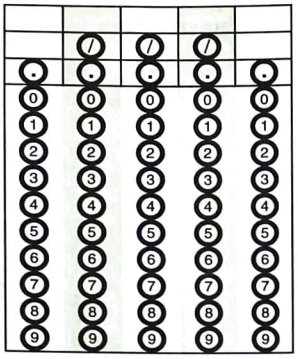


Which proportion can be used to find h, the height in feet of the flagpole?

① $\frac{h}{3} = \frac{20}{2.5}$
② $\frac{h}{3} = \frac{2.5}{20}$
③ $\frac{h}{1} = \frac{20}{2.5}$
④ $\frac{h}{1} = \frac{2.5}{20}$
⑤ $\frac{h}{20} = \frac{2.5}{3}$

14. A set of towels that regularly sells for $24.00 is on sale at a 30% discount. What is the total cost of the set of towels if the sales tax is 5%?

Mark your answer in the circles in the grid.



15. Body mass index (BMI) is a measure of body fat, based on height and weight. BMI applies to both men and women and is defined by the following formula:

$$\text{BMI} = \frac{703w}{h^2}$$

where h is the height in inches, and
w is the weight in pounds.

Weight categories based on BMI for both men and women are defined as follows:

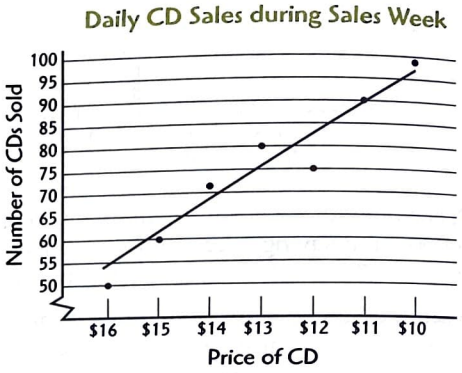
BMI	Weight Description
below 18.5	Underweight
18.5 to 24.9	Normal weight
25 to 29.9	Overweight
30 or greater	Very overweight

To the nearest whole number, what is the BMI of a 70-inch-tall man who weighs 185 pounds?

① 24
② 27
③ 29
④ 30
⑤ 33

Problems 16–18 are based on the following graph and information.

Over a 7-day period, the manager of CD Circle had a sale on music CDs. Each day he reduced the price by $1.00. The sales results are graphed below. A line of best fit is drawn to show the trend of the data.



16. Based on the line of best fit, about how many more CDs sell for each reduction of $1.00 in price? Round your answer to the nearest whole number.

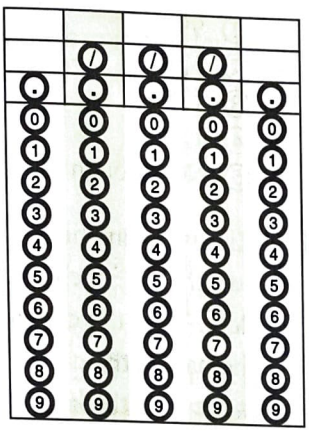
① 2
② 3
③ 5
④ 7
⑤ 9

17. Which is the best estimate of the ratio of the actual number of CDs sold at $10 to the number sold at $16?

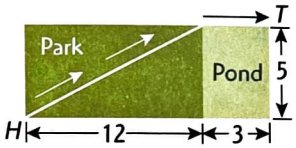
① 2 to 3
② 3 to 2
③ 2 to 1
④ 3 to 1
⑤ 4 to 1

18. What is the median number of sales per day during the 7-day period shown?

Mark your answer in the circles in the grid.



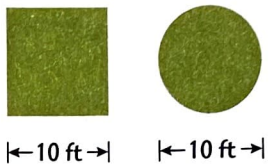
19. Georgia walks from her home (H) to the theater (T) by taking the shortcut through the park as shown by the arrows. What distance in blocks will Georgia walk?



All distances are in blocks.

① 13
② 15
③ 16
④ 17
⑤ 20

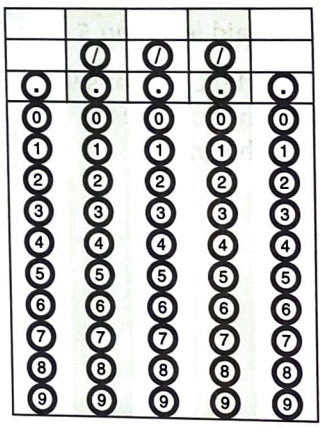
20. Debra is planning to buy either a square rug or a circular rug as shown in the drawing. About how many square feet larger is the square rug than the circular rug? Use $\pi = 3.14$.



① 18
② 22
③ 25
④ 29
⑤ 32

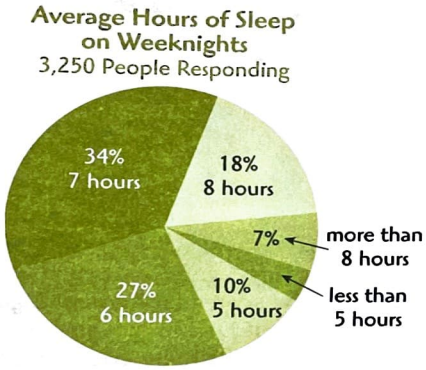
21. Lucinda is bowling 3 games in tonight's league competition. The scores for her first 2 games are 148 and 161. If Lucinda wants the average (mean) of her 3 games to be 160, what score does she need in her third game?

Mark your answer in the circles in the grid.



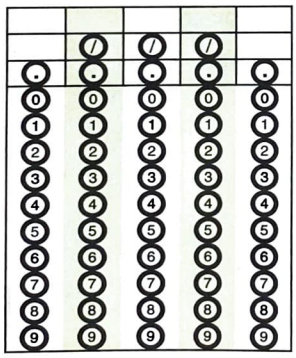
Problems 22 and 23 refer to the information and circle graph below.

In a recent Internet poll, the following question was asked: "On the average, how many hours of sleep do you get each weeknight?" The poll results are shown in the circle graph below.



22. What percent of the people who responded said *less than 5 hours*?

Mark your answer in the circles in the grid.



23. How many of the people who responded said *7 hours*?

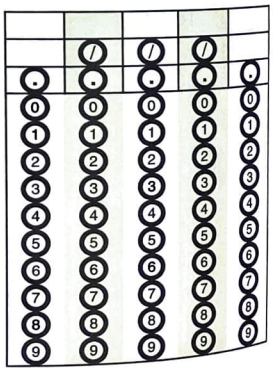
① 996
② 1,017
③ 1,026
④ 1,105
⑤ Not enough information is given.

24. Kira is having her living room carpeted. A pad that is $\frac{5}{8}$ inch thick will be placed on the floor. Then the carpet will be placed over the pad. If the carpet is $\frac{3}{4}$ inch thick, what is the total thickness of the pad and the carpet together?

① $\frac{2}{3}$ inch
② $\frac{7}{8}$ inch
③ $1\frac{1}{8}$ inches
④ $1\frac{1}{4}$ inches
⑤ $1\frac{3}{8}$ inches

25. An assembly-line worker found 6 defects in the 265 computers he tested. At this rate, how many defects, to the nearest whole number, will be found in 1,200 computers?

Mark your answer in the circles in the grid.



GED Posttest Part 2

You may **not** use a calculator for questions on this part of the test.

26. Orange juice concentrate is on sale for \$0.99 per can if you buy a case of 24 cans. Which is the best estimate of the amount you save by buying at this sale price compared with the cost of buying 24 cans at the regular price of \$1.21 each?

① \$1
② \$2
③ \$3
④ \$4
⑤ \$5

27. Armano has five guitar strings that have the following thicknesses given in inches: 0.098, 0.204, 0.3, 0.03, and 0.026.

How many of the strings have a thickness greater than 0.2 inch?

① 5
② 4
③ 3
④ 2
⑤ 1

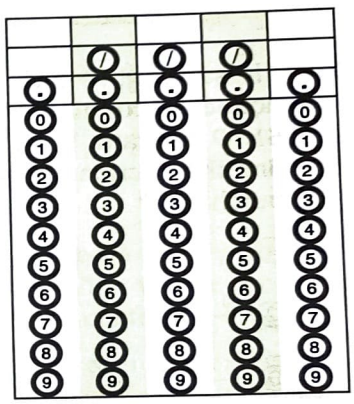
28. Julianna wants to drill a hole that is wider than $\frac{1}{2}$ inch but narrower than $\frac{5}{8}$ inch. She has a box containing five drill bits. The diameters, in inches, of the drill bits are: $\frac{3}{4}, \frac{13}{32}, \frac{7}{16}, \frac{9}{16}, \frac{1}{4}$

Which drill bit should Julianna use?

① $\frac{3}{4}$
② $\frac{13}{32}$
③ $\frac{9}{16}$
④ $\frac{7}{16}$
⑤ $\frac{1}{4}$

29. Roberto is making silver bracelets to sell at his booth at the Fall Festival. For each bracelet he uses 7 inches of chain. How many bracelets can Roberto make if he has 3 pieces of silver chain, each $2\frac{1}{2}$ feet long?

Mark your answer in the circles in the grid.



30. Mount McKinley in Alaska is the highest mountain in North America. What is the approximate height of Mount McKinley?

① 13,700 millimeters
② 6,200 meters
③ 650 kilometers
④ 450 centimeters
⑤ 140 meters

Problem 31 refers to the table below.

Length (U.S. Customary)		
1 foot	=	12 inches
1 yard	=	3 feet
1 mile	=	5,280 feet

31. Elyssa bought 9 inches of lace trim to make dollhouse curtains. The price of the trim is $1.89 per yard. Which expression tells how to find the fraction of a yard that Elyssa purchased?

① $\frac{12}{9 \times 3}$

② $\frac{9 \times 3}{12}$

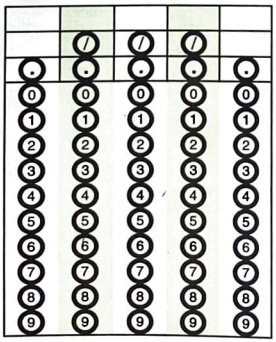
③ $\frac{3 \times 12}{9}$

④ $\frac{9}{12 \times 3}$

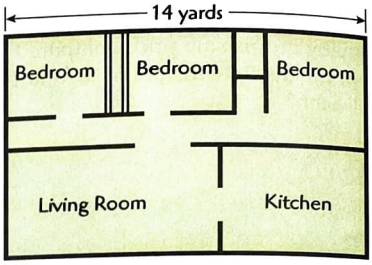
⑤ $\frac{9 \times 12}{3}$

32. Leticia works as a server at The Gas Light Restaurant. On the average she serves 12 tables each hour. She earns $7 each hour and keeps her tips, which average $3.00 for each table she serves. How many tables can Leticia expect to serve during a shift of 3 hour and 45 minutes on Saturday?

Mark your answer in the circles in the grid.



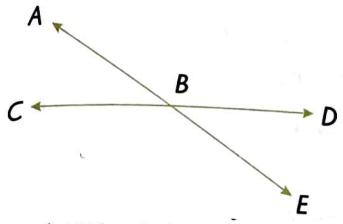
Problem 33 refers to the drawing below.



33. Heather drew the sketch of several rooms shown above. She measured the width of the sketch to be 7 inches. Which scale should Heather write below her sketch?

① 1 inch = 6 feet
② 1 inch = 12 yards
③ 1 inch = 3 feet
④ 1 inch = 4 feet
⑤ Not enough information is given.

Problem 34 refers to the diagram below.

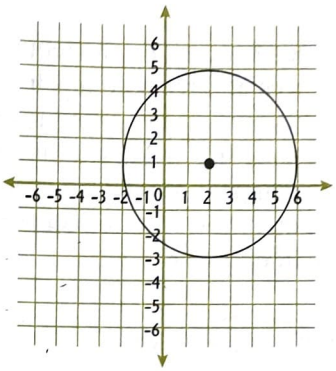


$\angle ABC$ and $\angle ABD$ combine to form a straight angle.

34. The measure of $\angle ABC$ is 40°. Which of the following gives the correct name and measure of an angle that is supplementary to $\angle ABC$?

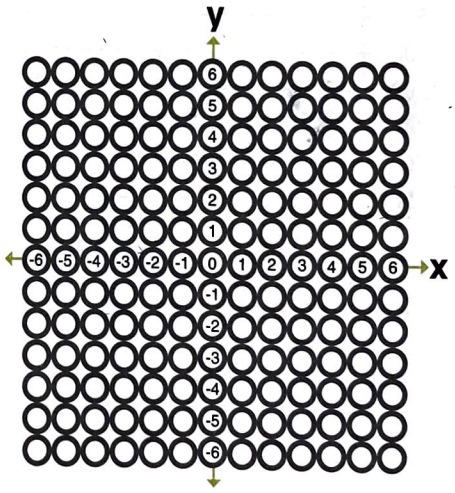
① $\angle DBE$, which has a measure of 40°
② $\angle DBE$, which has a measure of 50°
③ $\angle CBE$, which has a measure of 140°
④ $\angle ABD$, which has a measure of 50°
⑤ $\angle ABD$, which has a measure of 320°

Problem 35 refers to the diagram below.



35. Suppose the circle is moved 3 units to the right and 4 units down. What will be the new coordinates of the circle's center?

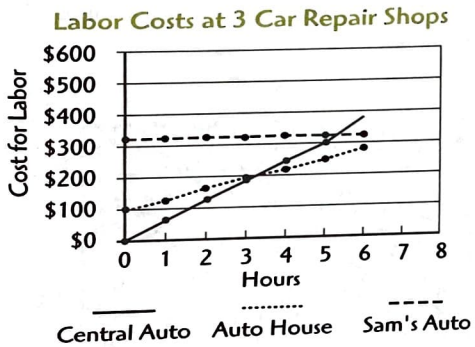
Mark your answer on the coordinate plane grid below.



Problems 36–38 refer to the information and graph below.

Corey needs her car's engine rebuilt. She checks prices at three auto repair shops. Each shop has its own way of charging for labor, and each shop has estimated that the total time for the repairs should take "no longer than 6 hours." The cost for parts will be about the same in each shop.

- Sam's Auto charges $325 for labor, no matter how long it takes.
- Auto House charges $100 *plus* an hourly charge for each hour worked.
- Central Auto charges only for the hours actually worked on the car.



36. How much does Central Auto charge for each hour of labor?

① $80
② $60
③ $40
④ $20
⑤ Not enough information is given.

37. If Corey's car engine takes 5 hours to rebuild, about how much would Corey save by having the work done at Auto House rather than at Central Auto?

① about $125
② about $100
③ about $75
④ about $50
⑤ about $25

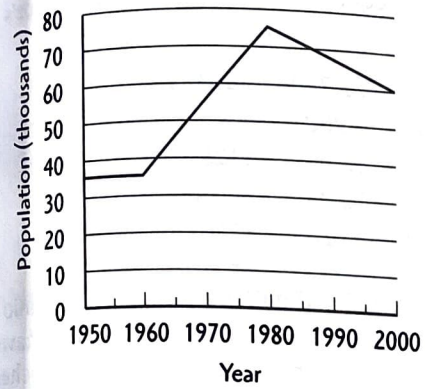
38. If Corey's car engine takes more than 6 hours to rebuild, about how much would Corey save by having the work done at Auto House rather than at Central Auto?

① about $75
② about $100
③ about $125
④ about $150
⑤ Not enough information is given.

Problem 39 refers to the graph below.

The graph shows the population of Harney County between the years 1950 and 2000.

Population of Harney County



39. Between 1960 and 1980, what was the average yearly increase in Harney County population?

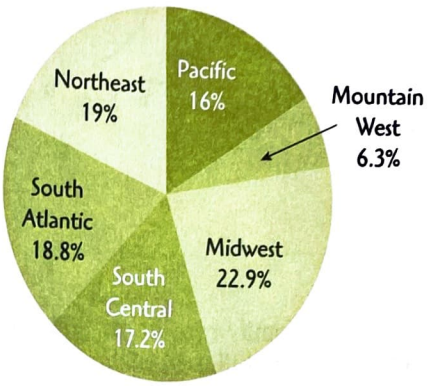
① 2,000
② 5,000
③ 10,000
④ 20,000
⑤ Not enough information is given.

40. Six friends have pooled $50 to buy raffle tickets for a Hawaiian vacation. The prices are $5.00 each or 5 for $20.00. A total of 6,000 tickets will be sold. If the friends buy the maximum tickets possible, what is the probability that one of the friends will win the vacation?

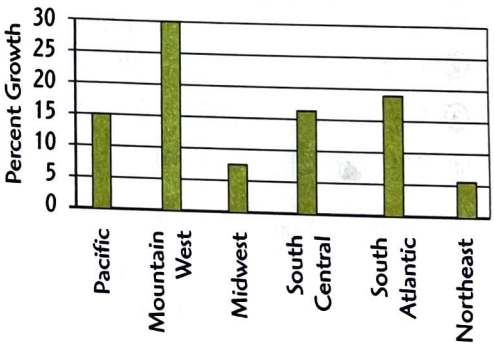
① $\frac{1}{1000}$
② $\frac{1}{800}$
③ $\frac{1}{600}$
④ $\frac{1}{500}$
⑤ $\frac{1}{50}$

Problems 41 and 42 refer to the graphs below.

Where People Live in the U.S. by Region
Year 2000



U.S. Population Growth By Region
1990 to 2000



41. Which region of the United States had the greatest population in the year 2000?

① South Atlantic
② Midwest
③ South Central
④ Northeast
⑤ Mountain West

42. In which region did the population increase by about one-third during the 1990s?

① South Atlantic
② Midwest
③ South Central
④ Northeast
⑤ Mountain West

43. Shailan has made 18 out of 24 field goal attempts this season. What is the probability that Shailan will **not** make her first field goal attempt in today's game?

① $\frac{3}{4}$
② $\frac{3}{5}$
③ $\frac{1}{4}$
④ $\frac{2}{3}$
⑤ $\frac{1}{2}$

44. The Sanders family eats dinner Friday night at Lou's Pizza. The bill is \$21.50, and a sales tax of n percent will be charged. Including tax, which expression tells the total cost of dinner?

① $(\frac{n}{100} \times \$21.50)$
② $(\frac{n}{100} \div \$21.50)$
③ $\$21.50 - (\frac{n}{100} \times \$21.50)$
④ $\$21.50 + (\frac{n}{100} \times \$21.50)$
⑤ $\$21.50 \times (\frac{n}{100} + \$21.50)$

45. Joyce and Daffney run a housecleaning service. Because Joyce provides all of the supplies, she earns \$250 more each month than Daffney. In May, Joyce and Daffney together earned a total of \$3,280.

Which equation can be used to find Joyce's share (J) of the income earned in May?

① $2J = \$3,280 + \$250$
② $J = \$3,280 - \$250$
③ $2J = \$3,280 - \$125$
④ $J = \$3,280 + \$350$
⑤ $2J = \$3,280 - \$250$

46. Andrew is building a rectangular brick patio in his backyard. He is using bricks that have a length of $2n$ inches and a width of n inches. He places the long side of each brick parallel to the length of the patio as shown below.

Andrew will place 25 bricks along the length of the patio and 30 bricks along the width. Not counting the space between the bricks, which expression gives the area of the completed patio?

① $1,500n^2$ square inches
② $750n^2$ square inches
③ $1,500n$ square inches
④ $750n$ square inches
⑤ 750 square inches

Problems 47 and 48 refer to the following information and table.

Benton County Fair charges an admission price and a fee for each thrill ride. The total cost for admission and a number (n) of rides is shown in the table below.

County Fair

Admission and Ride Cost

n	0	1	2	3	4
C	\$4.50	\$5.10	\$5.70	\$6.30	\$6.90

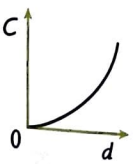
47. If this cost pattern continues, what total amount will Joel spend going to the fair and paying for 10 rides?

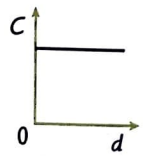
① \$12.50
② \$10.50
③ \$9.70
④ \$8.40
⑤ \$6.00

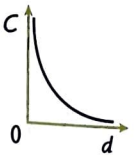
48. Which equation tells how the value of C depends on the value of n?

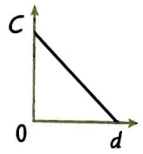
① $C = \$4.50 + n$
② $C = \$0.60n$
③ $C = \$0.60n + \$4.50$
④ $C = \$4.50n + \$0.60$
⑤ $C = (\$4.50 + \$0.60)n$

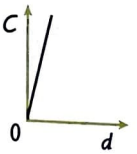
49. Which graph best represents the relationship between the circumference, C, of a circle and its diameter, d?

①


④


②


⑤


③


50. The volume for a square pyramid is given by the formula:

Volume $= \frac{1}{3} \times (\text{base edge})^2 \times \text{height}$

In symbols, this formula is $V = \frac{1}{3} \times s^2 \times h$.

Which formula tells you how to find the height h of a square pyramid when you know V (the volume) and s (the length of the base edge)?

① $h = \frac{V}{3s^2}$
② $h = \frac{3}{Vs^2}$
③ $h = \frac{s^2}{3V}$
④ $h = \frac{3s^2}{V}$
⑤ $h = \frac{3V}{s^2}$

Posttest Evaluation Chart

Circle the number of any problem you missed. The column after the problem number tells you the skill. The next column tells you the pages to review in this book. The last column indicates the pages in Contemporary's *GED Mathematics* where the skill is taught in greater detail.

Part 1

Problem Number	Skill Name	Review Pages	GED Math
1	Decimals	18–19	75–98
2	Order of Operations	20–21	43–45
3	Decimals	22–23	75–98
4	Scales	42–43	190–194
5	Fractions	28–29	103–136
6	Fractions, Decimals, Percents	30–31	150–155
7	Triangles	58–59	259–262
8	Values	112–113	292–322
9	Linear Equations	108–109	329–330
10	Percent	38–39	149–182
11	Simple Interest	48–49	176–178
12	Volume	64–65	252–258
13	Similar Figures	50–51	263–270
14	Discount and Sales Tax	32–33	174–175
15	Formulas	94–95	234–239
16	Line of Best Fit	76–77	---
17	Ratios	34–35	137–139
18	Central Tendency	70–71	197
19	Pythagorean Relationship	60–61	271–275
20	Area	62–63	240–248
21	Missing Terms	72–73	140–144
22	Circle Graphs	84–85	197–211
23	Circle Graphs	86–87	197–211
24	Fractions	26–27	103–136
25	Proportions	36–37	140–145

Part 2

Problem Number	Skill Name	Review Pages	GED Math
26	Estimation	14–15	25, 61, 116
27	Decimals	16–17	75–98
28	Fractions	24–25	103–136
29	Measurement	54–55	183–194
30	Units	40–41	183–194
31	Units of Measure	44–45	183–194
32	Rate	46–47	137–148
33	Scale Drawing	52–53	190–194
34	Angles	56–57	223–280
35	Coordinate Plane	66–67	323–346
36	Slope	68–69	331–335
37	Multiple Line Graph	80–81	197–222
38	Interpolate and Extrapolate	74–75	---
39	Single Line Graph	78–79	197–222
40	Probability	90–91	197–222
41	Data	88–89	197–222
42	Bar Graphs	82–83	197–222
43	Probability	92–93	197–222
44	Algebraic Expressions	96–97	292–322
45	Equation Word Problems	98–99	292–322
46	Algebraic Expressions	100–101	292–322
47	Numerical Patterns	102–103	17–50
48	Values	106–107	292–322
49	Equations	104–105	294–322
50	Equations	110–111	294–322