

SUMMER
MATH
FUN

5th Going into 6th

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Mrs. Forsyth

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CHAPTER
1 **Free Response**
Test B

1. Write $<$ or $>$ $37,589$ \square $37,409$

2. Write in order from least to greatest:
 $3,290$; $3,966$; $3,078$.

3. Write in order from greatest to least:
 $8,254$; $8,549$; $8,375$.

For 4 and 5 round to the largest place value to estimate.

4. $3,620 + 4,485$

5. $2,626 - 1,693$

For 6 and 7, estimate the sum or difference. Round to the place value indicated.

6. $6,658 - 5,250$; thousands

7. $51,728 + 23,250$; thousands

8. Write in exponential form:
 $4 \times 4 \times 4 \times 4 \times 4 \times 4$.

9. What is the value of 3^6 ?

For 10–12, simplify each expression.

10. $25 - 15 \div 3$

11. $57 - 3^3 + 18$

12. $15 + 30 \div (25 - 19) - 17$

For 13–15, use mental math to solve.

13. $28 + 9 + 32 + 7$

14. $2 \times 8 \times 7 \times 5$

15. 7×35

CHAPTER
1 **Free Response**
Test B, continued

16. In 1966, 103,224 acres of land in Florida were used to grow grapefruit. Thirty years later, 144,416 acres were used. What was the increase in acreage?
- _____

17. A lion sleeps about 15 hours each day. How many hours does a lion sleep in one year?
Hint: 1 year = 365 days.
- _____

18. The first people to climb Mount Everest started from their base camp at 5,486 meters and climbed to the summit at 8,848 meters. How far did they climb?
- _____

19. The school theater has 36 rows with 25 seats in each row. How many people can sit in the theater?
- _____

**For 20–22, identify a pattern.
Replace ? with missing terms.**

20. 111, 93, 75, ?, 39, ?
- _____

21. 5, 8, 14, 23, 35, ?, ?, ?
- _____

22. 47, 50, 45, 48, 43, 46, ?, ?
- _____

CHAPTER **Free Response**
2 **Test B**

For 1 and 2, evaluate each expression to find the missing values for each table.

1.

w	3	4	5
$w + 12$	15		

2.

x	5	10	15
$x \div 5$	1		

3. Jorge's family needs to find the area of their new garage floor. The length, l , is 34 feet and the width, w , is 28 feet. Find the area, A , of the garage floor using the formula $A = l \times w$.

4. Janna knows the distance in miles and wants to find it in kilometers. One mile, m , is about 1.61 kilometers. Write an expression Janna should use.

5. Write the product of 12 and 6 as a numerical or algebraic expression.

6. Write two word phrases for the expression $15w$.

7. What is an expression for the missing value in this table?

gallons	1	2	3	n
cups	16	32	48	

For 8 and 9, find an expression for the missing value in each table.

8.

y	7	8	9
	28	32	36

9.

z	10	20	40
	32	41	61

For 10 and 11, determine whether the given value of the variable is a solution.

10. $12w = 144$ for $w = 3$

11. $142 = 128 + y$ for $y = 14$

12. In January, the total snowfall in Boston was 23 inches. The first storm was 7 inches; the second storm was 9 inches. Write an equation to find how much snow fell in the third storm t . Solve the equation.

For 13–16, solve the equation.

13. $v + 108 = 126$

14. $137 + m = 165$

15. $108 = j - 19$

16. $f - 49 = 25$

17. Jim removed 27 gallons of water from a rainwater storage tank. There are 59 gallons left in the tank. What equation can Jim use to find out how much water was in the tank earlier?

18. Solve for h if $16h = 128$.

19. Fala picks 13 baskets of apples daily until all the apples are harvested. Her total yield is 234 baskets of apples. How many days has she worked? Use $13d = 234$.

For 20 and 21, solve the equation.

20. $17w = 187$

21. $w \div 14 = 7$

22. Palomi shares grapes with 5 classmates. She gives one large bowl of 55 grapes to each person. How many grapes did she have? Use $\frac{g}{5} = 55$.

23. Solve for z if $z \div 25 = 12$.

CHAPTER
3 **Free Response**
Test B

1. Write 6.024 in expanded form and word form.

For 2 and 3, order the decimals from least to greatest.

2. 3.87, 3.2, 3.45

3. 13.6, 13.2, 13.62

4. Estimate $36.134 + 7.65$ by rounding to the nearest tenth.

5. Use compatible numbers to estimate the product 120.4×2.985 .

6. Estimate a range for the sum $9.65 + 30.1 + 5.835$.

7. Add $11.54 + 17.01$.

8. Evaluate $13.79 - x$ for $x = 2.54$.

9. Multiply $4.12 \times 1,000$.

10. Write 7.421×10^6 in standard form.

11. Write 2,357,000 in scientific notation.

12. Find the product 1.72×5 .

13. Find the product 8.4×0.03 .

14. Evaluate $23x$ for $x = 2.55$.

15. Find the quotient $19.5 \div 6$.

16. Evaluate $8.88 \div m$ for $m = 3$.

CHAPTER
3 **Free Response**
Test B, continued

17. The total width of five rows of a vegetable garden is 12.75 feet. What is the width of each row?

18. The area of a rectangle is 26.25 cm^2 . Its length is 7.5 cm. What is the width of the rectangle?

19. Find the quotient $7.82 \div 3.4$.

20. Estimate the quotient $17.5 \div 0.28$.

21. At \$1.25 per dozen how many whole dozens of eggs can be bought for \$6.00?

22. Dennis bought 1,000 feet of aluminum stripping for \$220. What did he pay per foot?

23. A piece of fabric is 25.5 in. wide. How many strips, each 2.25 in. wide, can be cut from the fabric?

For 24–26, solve each equation and check your answer.

24. $y - 5.4 = 7.5$

25. $6.6j = 26.4$

26. $18.1 + h = 23.6$

CHAPTER **Free Response**
4 Test B

1. Which are prime numbers?
 47, 61, 112

2. List all the factors of 100.

3. List all the factors of 105.

4. Write the prime factorization of 65.

For 5–7, find the GCF.

5. 54 and 80

6. 52 and 26

7. 30, 60, and 90

For 8 and 9 write each decimal as a fraction or a mixed number in simplest form.

8. 0.6

9. 5.75

For 10 and 11, write each fraction or mixed number as a decimal.

10. $\frac{3}{20}$

11. $6\frac{1}{5}$

12. Compare. Write $<$, $>$, or $=$.

$\frac{5}{8} \square 0.63$

For 13 and 14, write two equivalent fractions for each fraction.

13. $\frac{6}{54}$

14. $\frac{24}{48}$

15. What is $\frac{17}{3}$ as a mixed number?

CHAPTER

4

Free Response**Test B, continued**

16. What is $3\frac{2}{5}$ as an improper fraction?

17. What is $5\frac{5}{9}$ as an improper fraction?

18. Compare. Write $<$, $>$, or $=$.

$$\frac{8}{15} \square \frac{24}{45}$$

For 19 and 20, order the fractions from least to greatest.

19. $\frac{1}{2}$, $\frac{4}{5}$, $\frac{5}{6}$

20. $\frac{5}{9}$, $\frac{2}{5}$, $\frac{6}{7}$

21. Roberto bought $2\frac{3}{8}$ lb of ham, $3\frac{5}{8}$ lb of turkey, and $3\frac{1}{8}$ lb of beef. Order the amounts from least to most.

22. Add $\frac{7}{15} + \frac{2}{15}$.

23. Subtract $\frac{11}{12} - \frac{5}{12}$.

24. Evaluate $\frac{9}{12} + n$ for $n = \frac{7}{12}$.

25. Evaluate for $\frac{11}{13} - n$ for $n = \frac{6}{13}$.

For 26–28, estimate each sum or difference by rounding to 0, $\frac{1}{2}$, or 1.

26. $\frac{1}{12} + \frac{3}{4}$

27. $\frac{17}{20} + \frac{1}{2}$

28. $\frac{9}{10} - \frac{7}{8}$

CHAPTER **Free Response**
5 Test B

Find the least common multiple (LCM).

1. 6 and 8

2. 3, 5 and 8

3. Kiesha buys pens and notepads. Pens come in packs of 6 and notepads come in packs of 10. What is the minimum number of packs of each that she needs to buy in order to have an equal number of each with none left over?

Write the answer in simplest form.

4. Add $\frac{3}{10} + \frac{3}{8}$.

5. Subtract $\frac{5}{6} - \frac{7}{12}$.

6. Add $3\frac{3}{4} + 2\frac{1}{8}$.

7. Subtract $9\frac{4}{5} - 2\frac{1}{2}$.

8. At the end of her shift at The Deli Shop, Maria had sold $15\frac{3}{4}$ pounds of sliced turkey and $21\frac{2}{3}$ pounds of ham. What was the total weight of the meat?

9. Subtract $9 - 2\frac{2}{5}$.

10. Pat has a $5\frac{2}{3}$ pound mixture of pecans and cashews. The mix includes $2\frac{3}{4}$ pounds of cashews. How many pounds are pecans?

11. Carlos buys $4\frac{1}{2}$ lb of cheese for a party. If $2\frac{3}{4}$ lb is eaten, how much cheese is left over?

12. Solve $y + 4\frac{1}{10} = 7$.

13. Solve $7\frac{1}{6} = y - 3\frac{2}{3}$.

CHAPTER **Free Response**
5 **Test B, continued**

14. Multiply $6 \cdot \frac{2}{3}$.

15. Evaluate $4t$ for $t = \frac{3}{7}$.

16. Pete is packing dog food for a 4-day camping trip. Pete's dog will eat $\frac{2}{3}$ pounds of food a day. How many pounds of dog food does Pete need to pack? Write the answer as a mixed number.

17. Multiply $\frac{5}{7} \cdot \frac{3}{4}$.

18. Evaluate $y \cdot \frac{1}{8}$ for $y = \frac{16}{17}$.

19. Marcus spent $\frac{1}{2}$ of his time for evening chores shoveling snow. For $\frac{2}{3}$ of that time, he shoveled the driveway. Express in simplest form how much of his total chore time he spent shoveling the driveway.

Multiply. Write the answer in simplest form.

20. $3 \cdot 4\frac{2}{5}$

21. $\frac{2}{3} \cdot 4\frac{1}{2}$

22. $1\frac{1}{2} \cdot 3\frac{1}{6}$

Divide. Write the answer in simplest form.

23. $\frac{2}{3} \div \frac{4}{5}$

24. $3\frac{3}{5} \div \frac{3}{4}$

25. $2\frac{9}{10} \div 3\frac{1}{3}$

Solve each equation. Write the solution in simplest form.

26. Solve $4a = \frac{2}{3}$.

27. Solve $\frac{8}{11}y = 6$.

CHAPTER 6 **Free Response**
Test B

1. In 1965, 520,000 children were enrolled in preschool. In 1975, 1,748,000 were enrolled. In 1985, 2,491,000 were enrolled. In 1995, 4,399,000 were enrolled and in 2000, 4,481,000 children were enrolled. Make a table of the data.

Use the table below to answer questions 2 and 3.

Attendance at Weekly Sales Meetings	
Date	Number in attendance
July 3	48
July 10	50
July 17	36
July 24	47
July 31	53
August 7	50
August 14	38

2. Find the mean of the data.

3. Find the range of the data.

4. How does the addition of the value 3 affect the mean, median, and mode of this data set?

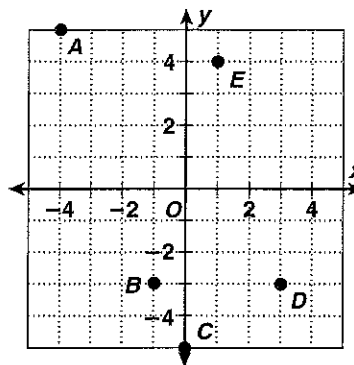
12, 18, 14, 15, 20, 15, 15

5. Make a bar graph.

Number of students in each class

Math	23	Gym	26
Spanish	12	Science	24
English	25	History	19

6. Which ordered pair represents B on the coordinate grid?

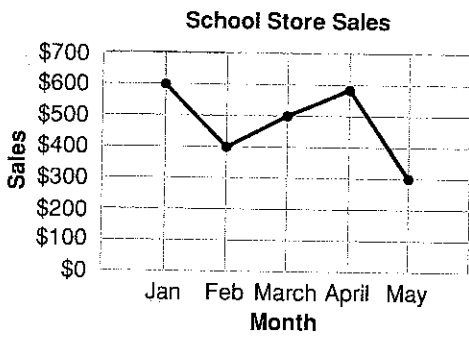


CHAPTER **Free Response**
6 **Test B, continued**

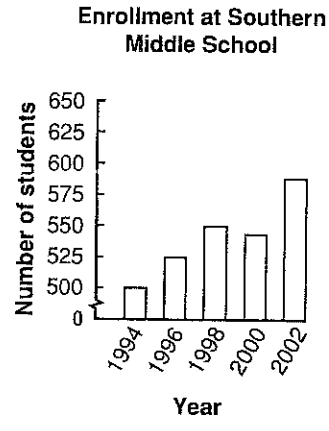
12	3	9	7	10
10	3	8	10	5
5	8	6	0	11
11	9	7	4	5
3	3	6	12	2
14	2	3	12	5

7. The data in the table above are the number of responses by the Swanton Rescue Squad for each day in April. Make a frequency table with the intervals.

8. The median value of this data is represented by which month?

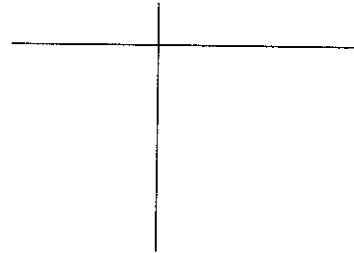


9. Why is this graph misleading?



10. Make a stem-and-leaf plot:

46,61,76,67,53,46,46,53,48,64,74



11. What is the median value of the data in the stem-and-leaf plot?

12. Name two types of graph that could be appropriate to display the data in the table below.

Year	Sales (in thousands)
2000	\$114
2001	\$130
2002	\$144
2003	\$140
2004	\$152
2005	\$154

CHAPTER 7 TEST

Complete the following.

a

b

1. $7 \text{ qt} = \underline{\hspace{2cm}} \text{ pt}$

$9 \text{ ft} = \underline{\hspace{2cm}} \text{ in.}$

2. $18 \text{ cups} = \underline{\hspace{2cm}} \text{ pt}$

$36 \text{ ft} = \underline{\hspace{2cm}} \text{ yd}$

3. $12 \text{ qt} = \underline{\hspace{2cm}} \text{ gal}$

$10 \text{ yd} = \underline{\hspace{2cm}} \text{ in.}$

4. $5 \text{ gal } 2 \text{ qt} = \underline{\hspace{2cm}} \text{ qt}$

$5 \text{ qt } 1 \text{ pt} = \underline{\hspace{2cm}} \text{ pt}$

5. $7 \text{ pt } 1 \text{ cup} = \underline{\hspace{2cm}} \text{ cups}$

$6 \text{ gal } 3 \text{ qt} = \underline{\hspace{2cm}} \text{ qt}$

6. $3 \text{ yd } 10 \text{ in.} = \underline{\hspace{2cm}} \text{ in.}$

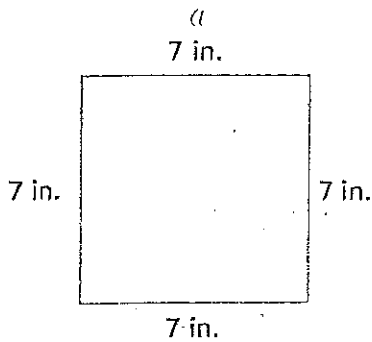
$7 \text{ yd } 1 \text{ ft} = \underline{\hspace{2cm}} \text{ ft}$

7. $5 \text{ ft } 11 \text{ in.} = \underline{\hspace{2cm}} \text{ in.}$

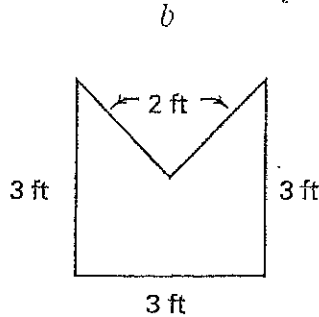
$4 \text{ yd } 2 \text{ ft} = \underline{\hspace{2cm}} \text{ ft}$

Find the perimeter of each figure below.

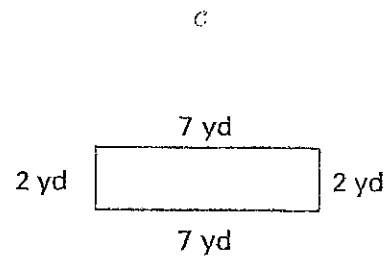
8.



_____ inches



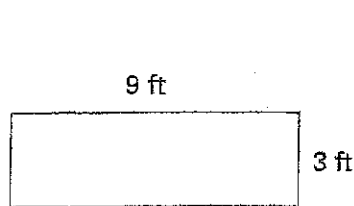
_____ feet



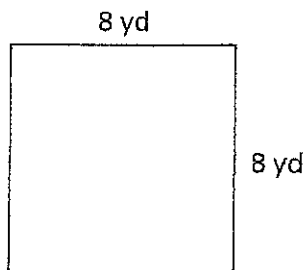
_____ yards

Find the area of each rectangle below.

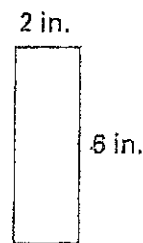
9.



_____ square feet



_____ square yards



_____ square inches

Name _____

Geometry Terms

Perimeter	Face	Cube	Line	Equilateral Triangle	Obtuse Triangle	
Area	Line Segment	Protractor	Plane	Hexagon	Quadrilaterals	Pentagon
Triangular Prism	Sphere	Ray	Trapezoid	Obtuse Angle	Point	
Congruent Polygons	180	Similar Polygons	Symmetrical	Rectangle		
Acute Triangle	90	Right Angle	Acute Angle	Scalene Triangle		
Cylinder	Heptagon	Vertex	Perpendicular Lines	Nonagon	Square	

1. A(n) _____ has 3 sides of different length.
2. The _____ is the distance around a polygon.
3. An example of this solid figure is a long tent. _____
4. A(n) _____ is a solid figure that has the shape of a round ball.
5. A(n) _____ is a quadrilateral with only one pair of parallel sides.
6. This describes a figure that is folded along a line, two parts matching exactly.

7. A(n) _____ measures greater than 90 degrees but less than 180 degrees.
8. This parallelogram has four right angles, and not all four sides are equal. _____
9. An example of this solid is a can of vegetables. _____
10. A(n) _____ is a polygon with 7 sides.
11. A(n) _____ is a triangle with all angles less than 90 degrees. _____
12. This is the flat surface of a solid figure. _____
13. A(n) _____ measures more than 0 degrees but less than 90 degrees.
14. A(n) _____ is a solid figure whose six faces are all squares.
15. This is an angle that measures exactly 90 degrees. _____
16. A(n) _____ is an instrument used to measure angles.
17. A(n) _____ is a polygon with 6 sides.
18. These are polygons with 4 sides. _____
19. These are polygons that have the same size and shape. _____
20. A(n) _____ is a quadrilateral with four equal sides and four right angles.
21. _____ have the same shape but not the same size
22. A(n) _____ is a polygon with five sides.
23. A(n) _____ is a straight path that goes on forever in both directions.
24. A(n) _____ has 3 congruent sides.
25. A(n) _____ is a triangle with an angle greater than 90 degrees.
26. _____ is the number of square units needed to cover a region.
27. A(n) _____ is an exact location in space.
28. A(n) _____ is a flat surface that extends without end in all directions.
29. Two lines that intersect to form 4 right angles. _____
30. A(n) _____ is a nine sided polygon.
31. Every triangle has _____ degrees.
32. Two rays meet at a _____ to form an angle.
33. Every quadrilateral has _____ degrees.
34. A(n) _____ is part of a line.
35. A(n) _____ has 1 endpoint and continues on without end in 1 direction.