6th grade summer packet (Honors)

Name _____ Date _____

CHAPTER 1

Practice 1-1

In the number 9,513,607,482, write the digit in each place. Then give its value.

1a. thousands **b.** tens **c.** millions
d. ten millions **e.** billions

Write the number in standard form.

2. six billion, twelve million, ninety-eight

3. 9,000,000 + 70,000 + 6000 + 70 + 3

4. seventy-six and fourteen thousandths

Compare. Write <, =, or >.

5a. 326.49 ? 326.94 **b.** 0.2 ? 0.20

6a. 247,913 ? 247,193 **b.** 7.05 ? 7.5

Round each number to the place of the underlined digit.

7a. 7,280,961 **b.** $967.35 **c.** 6.143

Practice 1-2

Find the missing number.

1a. 7 + 6 = □ + 7 **b.** 9 = □ + 9

2a. (4 + 5) + 8 = 4 + (□ + 8) **b.** □ − 5 = 0

Add or subtract.

3a. 34,729 + 29,886 **b.** 48,924 + 9,789 **c.** $180.77 + 99.65

4a. 6000 − 2534 **b.** 9103 − 894 **c.** $447.03 − 195.80

Practice 2-2

Multiply.

1a. 6 × 42,003 **b.** 37 × 7018

2a. 473 × 3219 **b.** 78 × $40.98

3a. 945 × $30.88 **b.** 500 × 7873

Answers

1a) ___ b) ___ c) ___ d) ___ e) ___

2) _____

3) _____

4) _____

5a) _____ b) _____

6a) _____ b) _____

7a) _____ b) _____ c) _____

Answers

1a) _____ b) _____

2a) _____ b) _____

3a) _____ 4a) _____

b) _____ b) _____

c) _____ c) _____

Answers

1a) _____ b) _____

2a) _____ b) _____

3a) _____ b) _____

Practice 3-2

Divide and check.

1a. $40\overline{)160}$ **b.** $50\overline{)2500}$ **c.** $30\overline{)90{,}000}$

2a. $17\overline{)399}$ **b.** $36\overline{)780}$ **c.** $25\overline{)906}$

3a. $51\overline{)3488}$ **b.** $82\overline{)9486}$ **c.** $46\overline{)7700}$

4a. $62\overline{)\$45.88}$ **b.** $13\overline{)\$44.33}$

5a. $78\overline{)69{,}408}$ **b.** $46\overline{)\$175.72}$

6a. $31\overline{)624{,}516}$ **b.** $16\overline{)963{,}008}$

Write whether each number is divisible by 2, 3, 4, 5, 6, 9, and/or 10.

7a. 1800 **b.** 32,508 **c.** 602,535

Compute. Use the order of operations.

8a. $52 + 6 \times 7 \div 3$ **b.** $12 - 8 \div 4 + (7 - 3) \times 5$

11. One hundred nineteen books are packed in 7 boxes. If the same number of books are packed in each box, how many books are in each box?

Write each fraction in lowest terms.

5a. $\frac{15}{27}$ **b.** $\frac{24}{36}$ **c.** $\frac{35}{49}$

6a. $\frac{18}{48}$ **b.** $\frac{20}{28}$ **c.** $\frac{49}{63}$

Find all the factors of:

7a. 40 **b.** 308 **c.** 246

Practice 4-2

Round to the nearest whole number.

1a. $3\frac{7}{8}$ **b.** $4\frac{1}{5}$ **c.** $9\frac{3}{7}$

Write each as a whole number or mixed number in simplest form.

2a. $\frac{13}{3}$ **b.** $\frac{35}{8}$ **c.** $\frac{49}{7}$

3a. $\frac{80}{11}$ **b.** $\frac{29}{2}$ **c.** $\frac{63}{8}$

Compare. Write <, =, or >.

4a. $\frac{5}{8}$? $\frac{1}{8}$ **b.** $3\frac{2}{5}$? $3\frac{4}{5}$

5a. $\frac{3}{5}$? $\frac{3}{7}$ **b.** $2\frac{1}{2}$? $2\frac{3}{6}$

Order from least to greatest.

6a. $\frac{1}{2}, \frac{3}{12}, \frac{1}{3}$ **b.** $\frac{2}{3}, \frac{7}{8}, \frac{1}{6}$

Answers

1a) _____ b) _____

2a) _____ b) _____

3a) _____ b) _____

4a) _____

5a) _____

6a) _____

7a) _____ b) _____

8a) _____ b) _____

11) _____

Answers

5a) _____ b) _____ c) _____

6a) _____ b) _____ c) _____

7a) _____ 7c) _____

Answers

1a) _____ b) _____ c) _____

2a) _____ b) _____ c) _____

3a) _____ b) _____ c) _____

4a) _____ b) _____

5a) _____ b) _____

6a) _____ b) _____

Practice 5-2

Add. Write each sum in simplest form.

1a. $\frac{9}{12} + \frac{1}{5}$ b. $\frac{7}{20} + \frac{3}{8}$ c. $\frac{1}{7} + \frac{3}{4}$

2a. $\frac{3}{4} + \frac{5}{6}$ b. $\frac{2}{3} + \frac{6}{7}$ c. $\frac{4}{9} + \frac{3}{7}$

3a. $1\frac{5}{9} + 1\frac{3}{4}$ b. $10\frac{1}{3} + 4\frac{7}{8}$

4a. $6\frac{1}{8} + 8\frac{5}{6}$ b. $9\frac{1}{4} + 3\frac{2}{3} + 2\frac{2}{5}$

Subtract. Write each difference in simplest form.

5a. $\frac{4}{5} - \frac{2}{3}$ b. $\frac{8}{9} - \frac{3}{5}$ c. $\frac{5}{6} - \frac{2}{7}$

6a. $\frac{11}{12} - \frac{5}{8}$ b. $\frac{13}{15} - \frac{1}{6}$ c. $\frac{4}{7} - \frac{1}{5}$

7a. $3\frac{3}{5} - 1\frac{1}{4}$ b. $5\frac{7}{8} - 1\frac{2}{3}$

8a. $10 - 3\frac{2}{3}$ b. $9\frac{1}{4} - 5\frac{4}{5}$

9a. $3 - 1\frac{9}{10}$ b. $8\frac{2}{3} - 7\frac{9}{10}$

14. Ellen ordered 6 pizzas for a party. Guests ate $4\frac{7}{8}$ pizzas. How much pizza was left over?

Practice 6-2

Rename each as a fraction.

1a. $1\frac{7}{10}$ b. $8\frac{11}{12}$ c. $9\frac{3}{7}$

Write the reciprocal of each number.

2a. 2 b. $\frac{14}{9}$ c. $3\frac{8}{11}$

Multiply.

3a. $\frac{3}{5} \times 5\frac{1}{3}$ b. $\frac{8}{9} \times 4\frac{1}{2}$

4a. $7 \times 3\frac{1}{4}$ b. $8\frac{2}{3} \times 5$

5a. $5\frac{2}{3} \times 4\frac{1}{9}$ b. $2\frac{1}{2} \times 6\frac{5}{6}$

6a. $9 \times 3\frac{4}{5}$ b. $6\frac{1}{3} \times 3\frac{1}{6}$

Divide.

7a. $3\frac{1}{3} \div 10$ b. $5\frac{2}{5} \div 9$

8a. $2\frac{1}{4} \div 3$ b. $5 \div 3\frac{3}{4}$

11. In a class of 28 students, $\frac{1}{7}$ wear glasses. How many students wear glasses?

15. Karen lives 3 miles from school. Her teacher lives $3\frac{3}{4}$ times that distance. About how far from school does the teacher live?

Answers

1a) _____ b) _____ c) _____

2a) _____ b) _____ c) _____

3a) _____ b) _____

4a) _____ b) _____

5a) _____ b) _____ c) _____

6a) _____ b) _____ c) _____

7a) _____ b) _____

8a) _____ b) _____

9a) _____ b) _____

14) _____

Answers

1a) _____ b) _____ c) _____

2a) _____ b) _____ c) _____

3a) _____ b) _____

4a) _____ b) _____

5a) _____ b) _____

6a) _____ b) _____

7a) _____ b) _____

8a) _____ b) _____

11) _____

15) _____

CHAPTER 7

Practice 7-1

Problem Solving

Use the spinner to find the probability of each event.

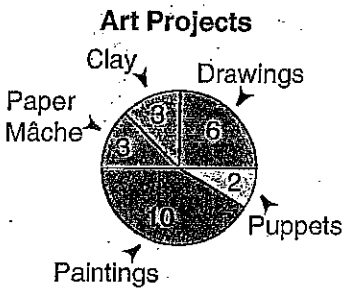
1a. P(even) **b.** P(<10)

2a. P(5 or 10) **b.** P(8)

Use the circle graph to solve problems 3–4.

3. How many art projects are on display?

4. What fraction of the projects is:
a. drawings?
b. clay?
c. paintings



The table gives class sizes at Nora's school. Use it to solve problem 7.

Class Size					
Class	5A	5B	5C	5D	5E
Number of Students	32	29	34	32	33

7. Find the range, mean, median, and mode of the class sizes.

CHAPTER 8

Practice 8-1

Write the place of the underlined digit. Then write its value.

1a. 4<u>9</u>.6 **b.** 0.3<u>4</u>8 **c.** 12.6<u>7</u>2

4a. $0.473 + 0.96$ **b.** $36.3 + 43.5$ **c.** $17.004 + 12.059$

5a. $0.75 - 0.2$ **b.** $1.6 - 0.74$ **c.** $17.439 - 8.8$

6a. $94.637 + 17.08 + 24.3$ **b.** $12 - 7.84$

12. Janis spent $7.99 on invitations, $3.79 on balloons, and $4.75 on streamers for a party. How much change did she get back from a $20 bill?

a) _____ b) _____ c) _____

1a) _____ b) _____ c) _____

5a) _____ b) _____ c) _____

6a) _____ b) _____

12) _____

Answers

1a) _____ b) _____

2a) _____ b) _____

3) _____

4a) _____ b) _____ c) _____

Complete.

	Trees Seen on Hike			
	Tree	Tally	Frequency	Cumulative Frequency
1.	Elm	𝍸 𝍸 𝍸	?	?
2.	Oak	𝍸 𝍸 ||	?	?
3.	Pine	?	13	?
4.	Birch	?	10	?

7) _____

CHAPTER 9

Practice 9-1

Find the missing number.

1a. $n \times 3.7 = 370$ **b.** $1000 \times n = 324$

2a. $42.6 \div n = 4.26$ **b.** $n \div 1000 = 0.007$

Multiply.

3a. 7×0.65 **b.** 2.7×0.8 **c.** 0.16×0.9

4a. 3.2×0.7 **b.** 0.63×0.3 **c.** 7×0.32

5a. 0.6×3.74 **b.** 4.3×6.92 **c.** 0.08×11.5

Divide and check.

6a. $0.374 \div 2$ **b.** $0.3 \div 6$ **c.** $1.6 \div 8$

7a. $0.64 \div 8$ **b.** $5.39 \div 5$ **c.** $1.308 \div 6$

1a) _____ b) _____

2a) _____ b) _____

3a) _____ b) _____

4a) _____ b) _____

5a) _____ b) _____

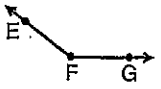
6a) _____ b) _____

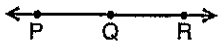
CHAPTER 10

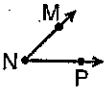
Practice 10-1

Classify each angle. Name its vertex and sides.

1a. 

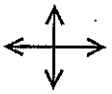
b. 

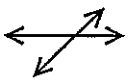
2a. 

b. 

Are the lines perpendicular? Write *Yes* or *No*. Use a protractor to check your answers.

3a. 

b. 

c. 

Name each polygon.

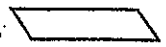
4a. 

b. 

Classify each quadrilateral.

5a. 

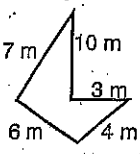
b. 

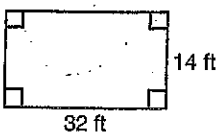
6a. 

b. 

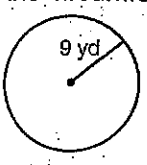
Practice 10-2

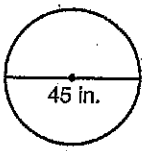
Find the perimeter of each polygon.

1a. 

b. 

Find the circumference of each circle.

2a. 

b. 

CHAPTER 11

Practice 11-1

Write the letter of the best estimate.

1. A bed might be 76 ? long.
   a. ft b. yd c. in.

2. A brick might weigh 3 ?.
   a. lb b. oz c. T

3. A coffee pot might hold 2 ?.
   a. gal b. pt c. qt

4. The temperature during a snow storm might be ?.
   a. 20°F b. 40°F c. 60°F

Add or subtract.

5a. 3 d 17 h + 2 d 15 h

b. 4 ft 9 in. + 3 ft 7 in.

6a. 5 qt 1 c − 3 qt 3 c

b. 7 T 380 lb − 3 T 900 lb

14. Three railroad cars measure 19 ft 8 in., 21 ft 3 in., and 20 ft 10 in. Find their total length.

15. The carnival began at 11:15 A.M. and ended at 10:45 P.M. How long did it last?

Answers

1a) _____ b) _____

2a) _____ b) _____

3a) _____ b) _____ c) _____

4a) _____ b) _____

5a) _____ b) _____

6a) _____ b) _____

Answers.

1a) _____ b) _____

2a) _____ b) _____

Answers

5a) _____

5b) _____

6a) _____

6b) _____

Answers

14) _____

15) _____

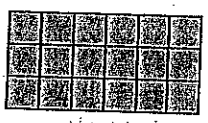
CHAPTER 12

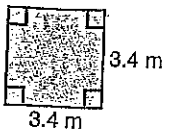
Practice 12-1

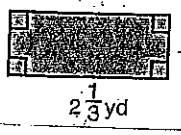
Write the letter of the best estimate.

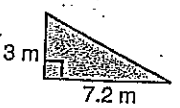
1. A tree might be ? tall.
   a. 4m b. 4 cm c. 4 km
2. A thumbtack might have a mass of ?.
   a. 3 g b. 3 mg c. 3 kg
3. A medicine dropper might hold ?.
   a. 5 mL b. 50 L c. 50 mL
4. A refrigerator might be ? wide.
   a. 1 m b. 1 cm c. 1 dm
5. A bear might have a mass of ?.
   a. 4 kg b. 400 g c. 400 kg

Find the area of each figure.

2a. 

b. 

3a. 

b. 

Answers

2a) _____ b) _____

3a) _____ b) _____

CHAPTER 13

Practice 13-1

Write the ratio of the number of:

1a. circles to stars b. triangles to stars

2a. circles to triangles b. triangles to circles

Which are proportions? Write = or ≠.

3a. $\frac{5}{6} \; ? \; \frac{11}{12}$ b. $\frac{13}{4} \; ? \; \frac{39}{12}$

Find the missing term in each proportion.

4a. $\frac{4}{5} = \frac{n}{20}$ b. $\frac{7}{8} = \frac{49}{n}$ c. $\frac{5}{n} = \frac{25}{40}$

Write as a percent.

5a. $\frac{39}{100}$ b. $\frac{78}{100}$ c. $\frac{9}{100}$

6a. 0.46 b. 0.7 c. 0.05

Write as a fraction in simplest form.

7a. 60% b. 85% c. 5%

Write as a decimal.

8a. 35% b. 6% c. 10%

Problem Solving

9. On a map, 1 cm represents 12 km. What does 5 cm represent?

Answers

1a) _____ b) _____

2a) _____ b) _____

3a) _____ b) _____

4a) _____ b) _____ c) _____

5a) _____ b) _____ c) _____

6a) _____ b) _____ c) _____

7a) _____ b) _____ c) _____

8a) _____ b) _____ c) _____

9) _____