

LAWRENCE WOODMERE ACADEMY
MIDDLE SCHOOL
SUMMER MATH PACKET

NAME: _____

SIXTH GRADE to SEVENTH GRADE

Name _____

Seventh Grade Math Summer Assignment

Welcome to Seventh Grade Math! Complete the following assignments in the attached packet. This is due the **first day** of school in September. Bring in a copy of your answers including **ALL work shown** to hand in for a grade. Keep a copy for your review. This will count as your first test grade (10 points for taken off for each day late). It will be graded on completeness rather than correctness. This assignment will be reviewed the first week and you will be tested on this material again after our review. This is your ticket to Seventh Grade Math, so make sure you start the year off well.

Have a great summer! See you in September!

Cumulative Test

Chapters 1-3
(Page 1 of 4 pages)

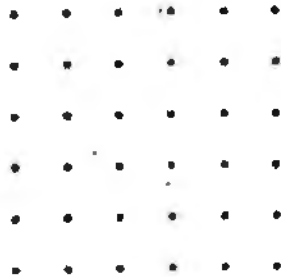
Name _____
Date _____

1. The first three figures of a pattern are shown. Make a table of their perimeters and areas. Describe the pattern. Find the perimeter and area of the next two figures. Check your answer with sketches. (1.2, 2.2, 2.3)



1.

2. Draw a square with an area of 16 square units on the 6-by-6 grid of dot paper shown. (1.5, 2.3)



2.

In Exercises 3-9, use mental math to solve. (1.6, 2.3, 2.4, 2.6)

3. $p - 23 = 35$

3. _____

4. $289 + f = 500$

4. _____

5. $w \cdot 11 = 66$

5. _____

6. $z \cdot z = 100$

6. _____

7. $t \div 2 = 14$

7. _____

8. $5(g + 2) = 25$

8. _____

9. $3(8 + x) = 36$

9. _____

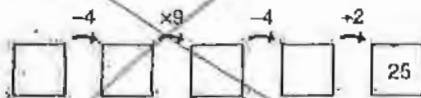
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Chapters 1-3
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10. Complete the model. (1.7)

10.



In Exercises 11-14, complete the statement (2:1, 3.2)

11. 235 tens = ones

11. _____

12. 6000 = hundreds

12. _____

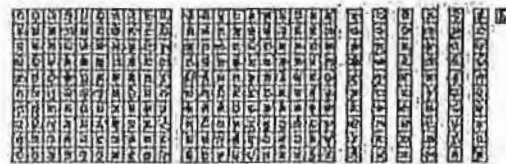
13. 47 mm = cm

13. _____

14. 2.16 km = m

14. _____

In Exercises 15-17, look at the base-ten
pieces at the right. Complete the statement
with the words *ones*, *tenths*, or *hundredths*.
(3.1)



15. There are 26.1 .

15. _____

16. There are 261 .

16. _____

17. There are 2.61 .

17. _____

In Exercises 18 and 19, evaluate the expression. (2.5, 3.7)

18. $42 \div 6 + 27 \div 9$

18. _____

19. $6^2 - (5 \times 4) \div 2$

19. _____

Cumulative Test

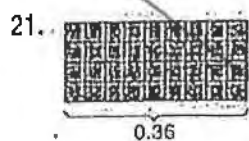
Chapters 1–3
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20. Evaluate the expression $8(9 + 11)$ two ways. (2.6) 20.

In Exercises 21 and 22, you are shown a model for a portion of a whole. Draw a model of the whole. (3.3)



21. _____



22. _____

In Exercises 23–25, decide whether the statement is true or false. Explain your reasoning. (3.4)

23. $40\% = \frac{4}{100}$ 23. _____

24. $0.8 = 80\%$ 24. _____

25. $0.06 = 60\%$ 25. _____

In Exercises 26–28, round each number to the given place value. (3.6)

26. 525.36 (tens) 26. _____

27. 5849 (thousands) 27. _____

28. 4735.809 (hundredths) 28. _____

Cumulative Test

Chapters 1-3
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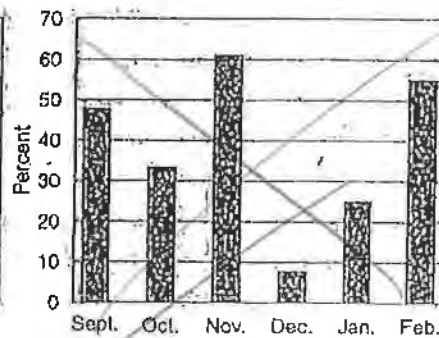
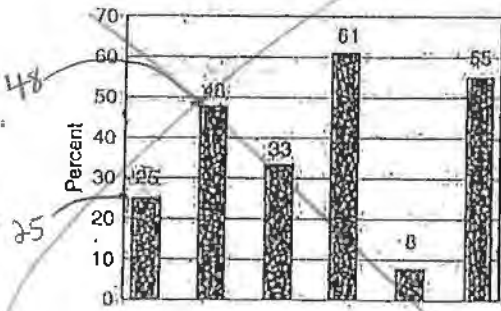
Name _____

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29. You roll a die with the numbers 1, 2, 3, 4, 5, and 6 and spin a spinner labeled A, B, C, and D. Make a list of the different combinations you could obtain. How many combinations are there? (1.3)

29. _____

In Exercises 30-33, use the graphs below. They show the percent of Juan's earnings that is deposited in his savings account each month. (1.4; 3.4, 3.5, 3.6)



30. Match the months with their savings percents.

30. _____

31. Change each percent to a decimal.

31. _____

32. Order the decimals from least to greatest.

32. _____

33. Round each decimal to the nearest tenth.

33. _____

34. Roger learns 30% of his Spanish vocabulary words the first week of school. He increases the number of words he learns by 10% each week. In how many weeks will he master 18 of the 20 vocabulary words he is assigned? (1.8, 1.9, 3.8)

34. _____

Cumulative Test

Chapters 1-6
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In Exercises 1-6, solve the equation. (1.6, 2.2-2.4, 4.6)

1. $a + 8 = 39$

1. _____

2. $44 - b = 21$

2. _____

3. $c \cdot 5 = 75$

3. _____

4. $d \div 4 = 12$

4. _____

5. ~~$3(e + 4) = 27$~~

5. _____

6. $1.23 \cdot f = 12.3$

6. _____

In Exercises 7-12, evaluate the expression. (2.1, 2.5, 2.7, 3.7)

7. $(6 \times 2^2) \div 3$

7. _____

8. $5 + 35 \div 5 - 2$

8. _____

9. $4^2 \div 2 + 40 \times 2$

9. _____

10. $3 \times 1000 + 5 \times 1$

10. _____

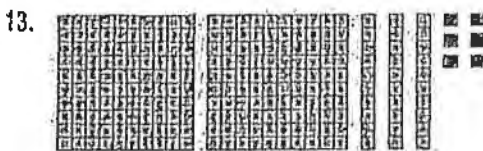
11. ~~101011_2~~

11. _____

12. ~~241_3~~

12. _____

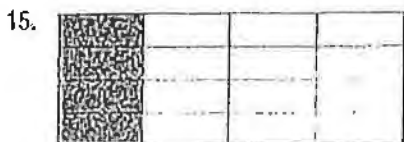
In Exercises 13-15, write the decimal or fraction shown by the shaded portion of the diagram. (3.1, 3.3, 6.1)



13. _____



14. _____



15. _____

Cumulative Test

Chapters 1-6
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Name _____
Date _____

In Exercises 16-21, complete the statement. (3.2, 6.2-6.4, 6.6)

16. $0.03 \text{ km} = \boxed{?} \text{ m}$

16. _____

17. $60\% = \frac{6}{\boxed{?}}$

17. _____

18. $0.35 = \boxed{?}\%$

18. _____

19. $\frac{6}{7} = \frac{\boxed{?}}{56}$

19. _____

20. $\frac{12 \text{ pens}}{36 \text{ pens}} = \frac{2 \text{ pens}}{\boxed{?} \text{ pens}}$

20. _____

21. $5\frac{1}{3} = \frac{\boxed{?}}{3}$

21. _____

In Exercises 22-25, order the numbers from least to greatest. (3.5, 6.5)

22. 0.45, 4.5, 5.4, 0.54, 0.405, 4.05

22. _____

23. 1.1, 0.11, 0.101, 0.011, 1.01, 0.01

23. _____

24. $\frac{3}{4}, \frac{4}{5}, \frac{7}{10}, \frac{3}{5}$

24. _____

25. $\frac{2}{3}, \frac{4}{5}, \frac{1}{2}, \frac{3}{4}$

25. _____

In Exercises 26-28, round each number to the given place value. (3.6)

26. 24,680 (thousands)

26. _____

27. 169.25 (ones)

27. _____

28. 79.264 (hundredths)

28. _____

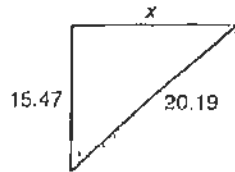
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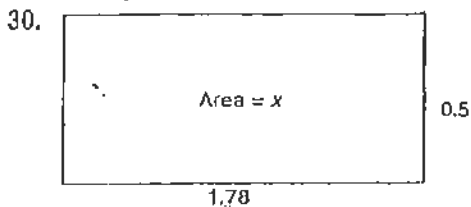
Name _____
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In Exercises 29-31, find x . (4.1, 4.2, 4.4, 4.5, 4.7)

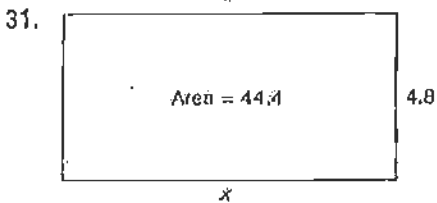
29. Perimeter: 53.46



29. _____



30. _____



31. _____

In Exercises 32 and 33, find the mean, median, and mode of the data. (5.3, 5.4)

32. 10, 11, 14, 17, 11, 15, 10, 14, 11, 16, 12

32. _____

33. 73, 68, 75, 82, 69, 85, 75, 78, 75, 88, 78

33. _____

In Exercises 34-36, use the list. It shows the prices of tee-shirts on display in a city block of street vendors. (1.3, 5.1)

~~\$12, \$5, \$12, \$16, \$5, \$8, \$12, \$10, \$8, \$12,
\$10, \$16, \$5, \$12, \$10, \$8, \$7, \$9, \$10, \$15~~

34. _____

34. Organize the data into a line plot.

35. What is the most common price for a tee-shirt?

35. _____

36. How many tee-shirts were priced higher than \$10?

36. _____

Cumulative Test

Chapters 1-6

Name _____

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In Exercises 37-40, use the table at the right. It shows the results of the monthly inventory of a music store. (1.2, 1.4, 3.4, 5.5, 5.8, 6.4)

Type of Music	Number of CD's Sold
Heavy Metal	75
Hard Rock	50
Soft Rock	30
Country	40
Jazz	30
Classical	15
Rap	60

37. Choose an appropriate graph to represent the data. Explain why you chose that type of graph.

38. What percent of the CD's sold were rap?

38. _____

39. What type of CD was sold twice as often as classical CD's?

39. _____

40. What type of CD represented $\frac{1}{4}$ of the CD's sold?

40. _____

In Exercises 41 and 42, use the table. It shows the record of George's weight loss during a 4-week program. (5.8)

Week	Weight
1	155
2	152
3	150
4	147

41. Choose an appropriate graph to display the data. Explain why you chose that type of graph.

42. Suppose George continued his diet. Approximate his weight on week 5 of the diet.

42. _____

Cumulative Test

Chapters 7-12 Name _____

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1. Write a problem and solution for $\frac{4}{12} + \frac{12}{24} = \frac{20}{24}$ using simplest form equivalent fractions. (7.3)

1. _____

In Exercises 2-5, solve. Simplify, if necessary. (7.4-7.6)

2. $3\frac{7}{8} + 5\frac{3}{8}$

2. _____

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

3. _____

4. $7\frac{1}{6} - 2\frac{5}{6}$

4. _____

5. $9 - 3\frac{1}{7}$

5. _____

In Exercises 6 and 7, draw an area model for the multiplication problem. Then find the product. (8.2)

6. $\frac{3}{4} \times \frac{1}{3}$

6. _____

7. $\frac{3}{5} \times \frac{3}{4}$

7. _____

In Exercises 8 and 9, use the data and measurements. (7.6, 8.5)

8. How many times longer is the Piranha than the Siamese Fighting Fish?

Neon Tetra

$1\frac{1}{2}$ in.



Siamese Fighting Fish

$2\frac{1}{2}$ in.



Piranha

10 in.

8. _____

9. How much longer is the Piranha than the Neon Tetra?

9. _____



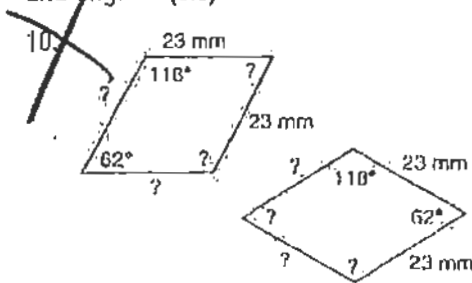
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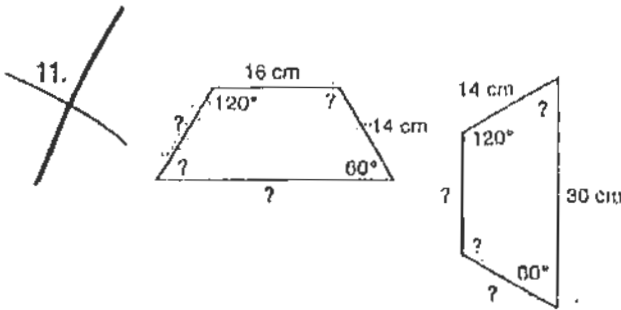
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Date _____

In Exercises 10 and 11, the two figures are congruent. Name the missing sides and angles. (9.3)

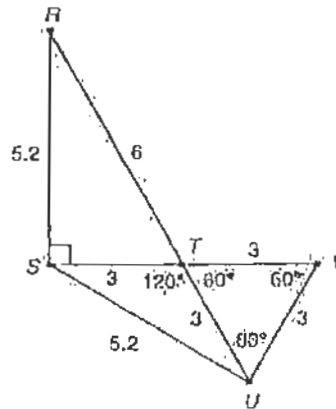


10.



11.

In Exercises 12-15, use the figure at the right. Classify the triangles using as many of the following words as possible: equilateral, isosceles, scalene, right, acute, obtuse. (9.6)



12. _____

13. _____

14. _____

15. _____

16. _____

12. ~~$\triangle RST$~~

13. ~~$\triangle STU$~~

14. ~~$\triangle TUV$~~

15. ~~$\triangle RSU$~~

16. You step 2 feet on to a ramp, and then jump into a pit of sponge balls 1 foot below ground. Write an expression that you can use to find the total distance of the jump. How far did you jump? (11.3)

Cumulative Test

Chapters 7-12 Name _____

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Date _____

In Exercises 17-22, use a number line to solve the problem. (11.2, 11.3)

17. $-5 + 13$

17. _____

18. $-12 + 9$

18. _____

19. $6 + (-6)$

19. _____

20. $3 - (-4)$

20. _____

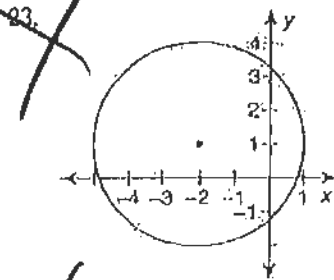
21. $-5 - (-10)$

21. _____

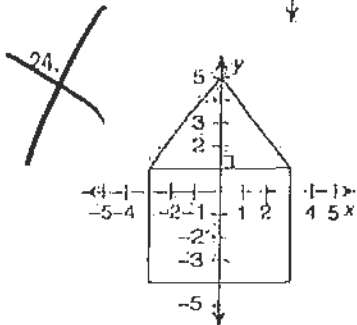
22. $-7 + (-4)$

22. _____

In Exercises 23 and 24, find the area of the figure. (10.4, 10.6, 11.6)



23. _____



24. _____

~~25.~~ Write a situation for which you can use the expression $0.57 + x = 1.00$. Then solve. (12.1)

25. _____

Cumulative Test

Chapters 7-12 Name _____

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In Exercises 26-30, solve the equation. Then check your solution. (12.1-12.3)

26. $y + 15 = -28$

26. _____

27. $b - 17 = 4$

27. _____

28. $r - \frac{1}{3} = -\frac{5}{12}$

28. _____

29. $3.75 + v = -1.8$

29. _____

30. $h - 4.25 = -8.19$

30. _____

31. You and a friend are going to a movie. You can choose from a comedy, a drama, or a sci-fi thriller. You may see an afternoon or an evening show. You may choose to sit in the front, middle, or back of the theater. How many different combinations of choices do you have? Use a tree diagram to solve the problem. (12.5)

31. _____

32. You are buying a computer. You can choose from 3 types of computers, 4 types of monitors, and 6 types of printers. How many different combinations can you buy? (12.5)

32. _____

33. You flip a coin five times. What is the probability that it lands heads up all five times? (12.6)

33. _____

34. You roll two number cubes. What is the probability that the sum of the cubes is 4 or less? (12.6)

34. _____