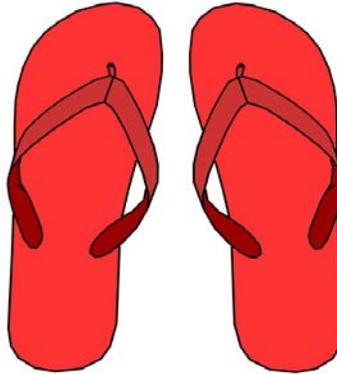


ALGEBRA Summer Math Packet



Students:

Enclosed are six lessons to do this summer.

Please do all work on the **answer sheets**, not on the problem sheets.

Return all papers.

These papers will count as your first **Test Grade** for Algebra.

Enjoy your summer break. See you soon!

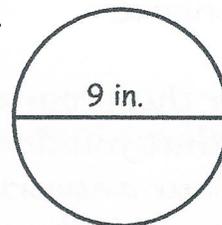
Much love,

Mrs. Schlanz



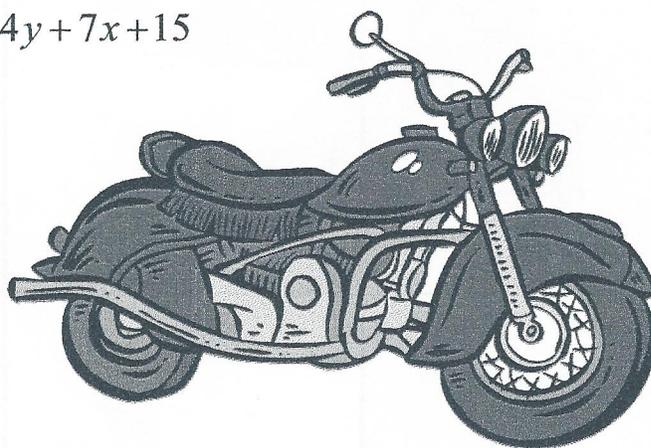
Lesson #1

1. $-19 + (-26) = ?$
2. $|-29| = ?$
3. $\sqrt{2,025} = ?$
4. $63 + (-46) = ?$
5. $3\frac{1}{3} + 4\frac{1}{5} = ?$
6. Solve for a . $a - 12 = 56$
7. You are building a fence 13 feet long. On Monday, you build $4\frac{1}{3}$ feet of the fence, and, on Tuesday, $5\frac{3}{4}$ feet. How much of the fence do you still need to build?
8. $0.06 \times 0.05 = ?$
9. $\frac{81}{-9} = ?$
10. Simplify. $6a + 4b + 8 + 3b - 4a + 9$
11. $-22 - (-16) = ?$
12. What is the value of x ? $\frac{x}{5} = 15$
13. $-6(-5) = ?$
14. Write the ratio *six to seven* in two other ways.
15. Find the circumference of the circle.
16. Evaluate $\frac{3ab}{2}$ when $a = 2$ and $b = 3$.
17. Change $\frac{4}{5}$ to a decimal and to a percent.
18. $30 \div 5 \cdot 6 + 14 - 10 \div 2 = ?$
19. Find the area of a square if a side measures 12 cm.
20. Write an algebraic expression for *the difference of a number and 10*.



Lesson #2

1. How many sides does a pentagon have?
2. $96 \times 57 = ?$
3. $50 \div 5 \cdot 9 - 45 + 5 = ?$
4. Solve for b . $b + 42 = -86$
5. $436,816 + 598,444 = ?$
6. What is the value of $3xy + 2x$ when $x = 2$ and $y = 3$?
7. Find the value of a . $2a = 36$
8. Make a factor tree for 45.
9. Round 56,477,812 to the nearest hundred thousand.
10. $-55 - (-39) = ?$
11. Combine like terms. $6x + 12 + 4y + 7x + 15$
12. $36.24 + 19.8 = ?$
13. What is the value of x ? $\frac{x}{12} = 9$
14. $8 - 3\frac{4}{5} = ?$
15. $-6(-2)(3) = ?$
16. Find the LCM of $6x^2yz^4$ and $15xy^3z^2$.
17. $64 + (-26) = ?$
18. After taxes, Lamar brings home \$500 per week in his pay. He would like to save enough money to put a \$2,000 down payment on a new motorcycle. If Lamar saves 50% of his weekly salary toward the down payment on a new motorcycle, how many weeks will it take him to reach his goal?
19. Write an algebraic phrase to represent *a number divided by 8*.
20. What value of x makes the two fractions equivalent? $\frac{9}{5} = \frac{108}{x}$



Lesson #3

- $93 - (-18) = ?$
- How long are the sides of a square if its area is 100 ft^2 ?
- $\sqrt{2,601} = ?$
- Write 35% as a decimal and as a reduced fraction.

5. Solve for a . $\frac{a}{4} = 16$

6. $|54| = ?$

7. $-33 + (-47) = ?$

8. Find the value of a . $5a = 75$

9. It is 4:20 now. What time will it be in 6 hours and 15 minutes?

10. $\frac{9}{12} \bigcirc \frac{7}{11}$

11. $3,080 \div 4 = ?$

12. Translate *the sum of a number and 18* into algebraic symbols.

13. $\frac{-54}{9} = ?$

14. Mary is 3 times as old as her brother, Josh. If Josh is 6 years old, how old will Mary be on her next birthday?

15. Round 46,877,641 to the nearest thousand.

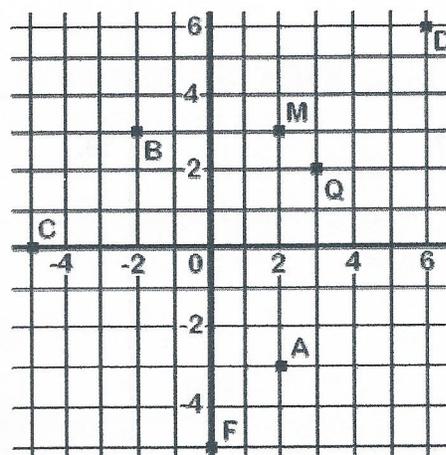
16. $\frac{3}{5} \times \frac{15}{18} = ?$

17. Put these integers in order from least to greatest. $-16, 0, 2, -24, 16$

18. Find the GCF of $18a^2bc^3$ and $24abc^2$.

19. Find the median of 17, 24, 98, 67 and 42.

20. Give the coordinates for points F, A, and D.



Lesson #4

1. On his way from Toledo to Cincinnati, Mr. Smith drove at an average rate of 65 miles per hour. If his trip took 5 hours, how far did he travel?
2. Find the area of a circle with a radius of 4 inches. (Hint: $A = \pi r^2$)
3. $-8(-4)(2) = ?$
4. A triangle with 2 congruent sides is a(n) _____ triangle.
5. $-88 - (-49) = ?$
6. $0.6 - 0.2475 = ?$
7. $2\frac{7}{10} - 1\frac{3}{5} = ?$
8. Solve for a . $\frac{a}{7} = 21$
9. Solve the proportion for x . $\frac{x}{5} = \frac{24}{60}$
10. How many quarts are in 6 gallons?
11. $-16 + (-14) + 11 = ?$
12. $36 \div 6 \cdot 2 + 10 - 5 = ?$
13. List the first 5 prime numbers.
14. Find the value of n . $n - 15 = 35$
15. The ratio of lions to giraffes living in the grasslands was 13 to 2. If there were 52 lions, how many giraffes lived in the grasslands?
16. Write $\frac{13}{20}$ as a decimal and as a percent.
17. Solve for x . $4x = 64$
18. $365,812 + 132,999 = ?$
19. What number is 60% of 90?
20. Simplify by combining like terms. $5a + 7 + 3b + 8a + 10 + 14a$



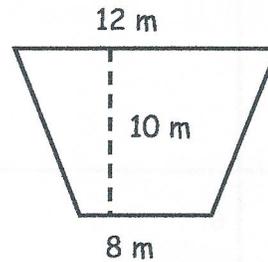
Lesson #5

1. $-55 - (-18) = ?$

2. Solve this equation to find the value of x . $3x - 7 = 14$

3. $7\frac{1}{2} + 3\frac{2}{5} = ?$

4. What is the area of the trapezoid?



5. Find $\frac{3}{5}$ of 75.

6. Solve for x . $\frac{x}{4} = 15$

7. Give the name of each shape.



8. $0.003 \times 0.07 = ?$

9. Write 65% as a decimal and as a reduced fraction.

10. How many hamburgers can Melinda make from 5 pounds of hamburger if she uses $\frac{1}{4}$ pound of meat per hamburger?

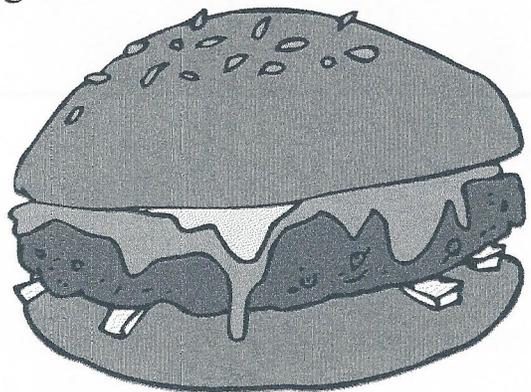
11. $36 \div 6 \cdot 4 - 4 + 10 \div 5 = ?$

12. $\sqrt{9,801} = ?$

13. 25% of 80 is what number?

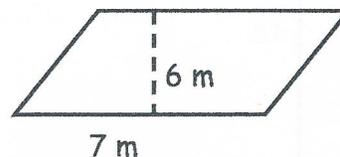
14. Find the GCF of $16x^2yz^3$ and $15xy^3z^2$.

15. If $a = 2$ and $b = 3$, evaluate $\frac{3ab}{b} + 6$.



16. Solve for x . $x - 14 = -36$

17. Find the area of the parallelogram.



18. $\frac{-42}{-6} = ?$

19. How many feet are in 3 miles?

20. Solve for x . $7x = 105$

Lesson #6

1. Write $6 \times 6 \times 6 \times 6 \times 6 \times 6$ using a base and an exponent.

2. $41 + (-23) = ?$

3. $\frac{-21}{3} = ?$

4. $\sqrt{784} = ?$

5. Solve for x . $\frac{5}{8} = \frac{x}{120}$

6. Solve for x . $3x = 48$

7. When $x = 3$ and $y = 4$, what is the value of $4xy + x$?

8. Find the volume of the rectangular prism.

9. Simplify. $\frac{8a^2bc^3}{12ab^2c^5}$

10. $|-91| = ?$

11. What value of a makes the equation true? $3a + 12 = 6a - 24$

12. Solve for b . $b + 16 = -52$

13. Simplify by combining like terms. $4a + 2b + 8 + 5a + 6b - 6$

14. $11 - 7\frac{3}{7} = ?$

15. Put these integers in decreasing order. $-56, 32, -3, 46$

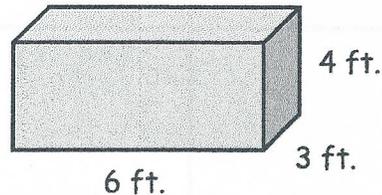
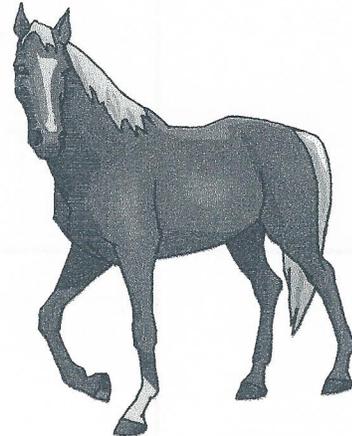
16. $10 \cdot 5 \div 2 + 5 - 3 = ?$

17. Write $\frac{12}{18}$ in simplest form.

18. Mr. Giles has 6 horses; each horse eats about 85 pounds of feed per year. How many pounds of feed will 6 horses eat in $1\frac{1}{2}$ years?

19. $63 - (-19) = ?$

20. Solve for a . $a - 17 = -52$



1.	2.	3.	4.
5.	6.	7.	8.
9.	10.	11.	12.
13.	14.	15.	16.
17.	18.	19.	20.

1.	2.	3.	4.
5.	6.	7.	8.
9.	10.	11.	12.
13.	14.	15.	16.
17.	18.	19.	20.

1.	2.	3.	4.
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9.	10.	11.	12.
13.	14.	15.	16.
17.	18.	19.	20.

1.	2.	3.	4.
5.	6.	7.	8.
9.	10.	11.	12.
13.	14.	15.	16.
17.	18.	19.	20.

1.	2.	3.	4.
5.	6.	7.	8.
9.	10.	11.	12.
13.	14.	15.	16.
17.	18.	19.	20.

1.	2.	3.	4.
5.	6.	7.	8.
9.	10.	11.	12.
13.	14.	15.	16.
17.	18.	19.	20.