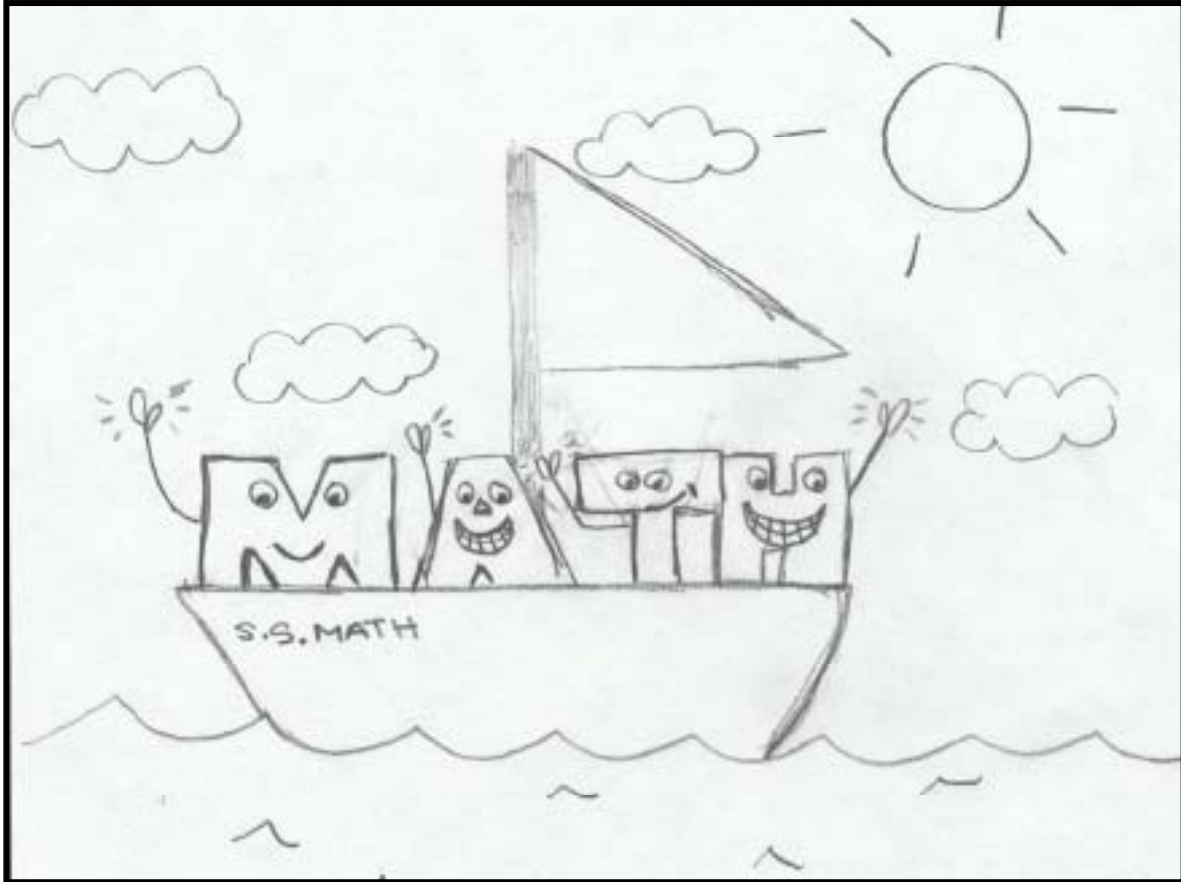


PARENT PACKET

Sail into Summer with Math!



For Students Entering Algebra Prep

This summer math booklet was developed to provide students in kindergarten through the eighth grade an opportunity to review grade level math objectives and to improve math performance.

Summer 2008

Algebra Prep Summer Mathematics Packet Answer Key

Answers to Fraction Operations [Pg. 1]

- | | | | |
|---------------------|--------------------------|-----------------------|--------------------|
| 1. $1\frac{11}{21}$ | 2. $1\frac{23}{36}$ | 3. $\frac{23}{55}$ | 4. $\frac{10}{63}$ |
| 5. $\frac{4}{11}$ | 6. $\frac{7}{15}$ | 7. $4\frac{2}{7}$ | 8. $1\frac{2}{33}$ |
| 9. $\frac{14}{93}$ | 10. $1\frac{1681}{1980}$ | 11. $2\frac{64}{495}$ | |

Answers to Decimal Operations [Pg. 2]

- | | | | |
|-------------|-------------|----------|------------|
| 1. 123.109 | 2. 1233.918 | 3. 31.31 | 4. 496.188 |
| 5. 4103.386 | 6. 8813.293 | 7. 2.52 | 8. 0.2001 |
| 9. 18.6984 | 10. 2.5284 | 11. 2.01 | 12. 3.608 |
| | | | 13. 3.256 |

Answers to Rename Fractions, Percents, and Decimals [Pg. 3]

- | | | | |
|----------------------------------|--------------------------------|------------------------------------|--------------------------------|
| 1. $\frac{1}{25}$, 0.04, 4% | 2. $1\frac{1}{4}$, 1.25, 125% | 3. $\frac{2}{3}$, 0.6, 66.6% | 4. $1\frac{7}{10}$, 1.7, 170% |
| 5. $\frac{3}{500}$, 0.006, 0.6% | 6. $3\frac{1}{2}$, 3.5, 350% | 7. $\frac{9}{10}$, 0.9, 90% | |
| 8. $\frac{7}{10}$, 0.7, 70% | 9. $\frac{17}{25}$, 0.68, 68% | 10. $\frac{7}{1000}$, 0.007, 0.7% | |

Answers to Add Mixed Numbers [Pg. 4]

- | | | | | |
|----------------------|-----------------------|----------------------|----------------------|---------------------|
| 1. $9\frac{1}{10}$ | 2. $15\frac{44}{175}$ | 3. $16\frac{4}{9}$ | 4. $4\frac{4}{55}$ | 5. $6\frac{13}{14}$ |
| 6. $7\frac{62}{105}$ | 7. $7\frac{83}{273}$ | 8. $9\frac{41}{105}$ | 9. $23\frac{11}{21}$ | |

Answers to Subtract Mixed Numbers [Pg. 5]

- | | | | | |
|--------------------|---------------------|---------------------|---------------------|---------------------|
| 1. $\frac{2}{3}$ | 2. $5\frac{11}{24}$ | 3. $4\frac{5}{99}$ | 4. $1\frac{47}{90}$ | 5. $6\frac{53}{60}$ |
| 6. $5\frac{5}{36}$ | 7. $4\frac{41}{56}$ | 8. $7\frac{27}{40}$ | 9. $3\frac{23}{40}$ | |

Answers to Multiply Mixed Numbers [Pg. 6]

- | | | | | |
|----------------------|--------------------|---------------------|---------------------|--------------------|
| 1. $49\frac{11}{21}$ | 2. $22\frac{2}{3}$ | 3. $42\frac{3}{4}$ | 4. $5\frac{7}{10}$ | 5. $32\frac{2}{3}$ |
| 6. $3\frac{23}{27}$ | 7. $10\frac{2}{7}$ | 8. $12\frac{6}{11}$ | 9. $5\frac{28}{45}$ | |

Answers to Divide Mixed Numbers [Pg. 7]

- | | | | | |
|---------------------|--------------------|----------------------|---------------------|--------------------|
| 1. $\frac{3}{11}$ | 2. $10\frac{2}{7}$ | 3. $\frac{40}{117}$ | 4. $5\frac{19}{20}$ | 5. $\frac{77}{93}$ |
| 6. $\frac{33}{100}$ | 7. $\frac{31}{42}$ | 8. $1\frac{25}{497}$ | 9. $1\frac{52}{63}$ | |

Answers to Find Percent of a Number [Pg. 8]

- | | | | | |
|------------|----------|----------|----------|-----------|
| 1. 1372.5 | 2. 3.15 | 3. 385.2 | 4. 8.1 | 5. 2.08 |
| 6. 512 | 7. 539.6 | 8. 57 | 9. 748.2 | 10. 414.8 |
| 11. 67.875 | 12. 67.2 | 13. 46.8 | 14. 1.92 | 15. 0.435 |
| 16. 1.296 | | | | |

Answers to Solve Problems using Percent [Pg. 9]

- | | | |
|----------------------|-------------|--------------|
| 1. \$168.42 | 2. \$60.96 | 3. \$3256.31 |
| 4. \$49.35, \$115.15 | 5. \$147.81 | 6. \$9804.00 |

Answers to Integers I [Pg. 10]

- | | | | | | | | |
|----------|------------|------------|--------------|------------|----------|--------|--------|
| 1. -9 | 2. -7 | 3. -3 | 4. -13 | 5. 16 | 6. -9 | 7. -13 | 8. -15 |
| 9. 2 | 10. -14.5 | 11. -13.85 | 12. 11.1 | 13. 8 | 14. 12.7 | | |
| 15. 45.1 | 16. -31.06 | 17. -21.34 | 18. -104.759 | 19. 15.232 | 20. 60.1 | | |

Answers to Integers II [Pg. 11]

- | | | | | | | |
|---------|---------|---------|--------|--------|---------|--------|
| 1. -72 | 2. 240 | 3. 24 | 4. -15 | 5. -3 | 6. -7 | 7. 6 |
| 8. -80 | 9. 12 | 10. 0 | 11. 3 | 12. 12 | 13. -1 | 14. -6 |
| 15. -67 | 16. -39 | 17. -10 | 18. 5 | 19. -8 | 20. 128 | |

Answers to Solving Equations I [Pg. 12]

- | | | | | |
|--------------|---------------|-------------|--------------|------------|
| 1. $x = -21$ | 2. $t = -5$ | 3. $t = 3$ | 4. $r = 96$ | 5. $y = 1$ |
| 6. $h = -13$ | 7. $p = -128$ | 8. $k = -4$ | 9. $p = -26$ | |

Answers to Solving Equations II [Pg. 13]

- | | | | |
|----------------------------------|-------------|--------------|--------------|
| 1. $t = -7$ | 2. $m = 50$ | 3. $r = 7.5$ | 4. $x = -39$ |
| 5. $g = -1.8$ or $-1\frac{4}{5}$ | | 6. $y = -24$ | |

Answers to Equations - Variables on Each Side [Pg. 14]

- | | | |
|-------------|-------------|------------------------|
| 1. $r = -5$ | 2. $t = 13$ | 3. $x = -8$ |
| 4. $y = -9$ | 5. $x = 2$ | 6. $p = 1\frac{3}{11}$ |

Answers to Inequalities [Pg. 15]

- $x > 2\frac{1}{4}$: number line should have open circle at $2\frac{1}{4}$ and extend to the right (positive values)
- $t \leq 3$: number line should have closed circle at 3 and line extends to the left (into negative values)
- $x \geq 6$: number line should have a closed circle at 6 and extend to the right.
- $x < -8$: number line should have an open circle at -8 and extend to the left

Answers to Pythagorean Theorem [Pg. 16]

- | | | | |
|--------------|------------------|-------------------|----------------|
| 1. $x = 4$ m | 2. About 5.66 ft | 3. $x = 15$ cm | 4. $x = 13$ ft |
| 5. 25 in | 6. About 14.14 m | 7. About 47.37 ft | |

Answers to Volume [Pg. 17]

- | | |
|------------------------|---------------------------|
| 1. 384 m^3 | 2. 1356.48 ft^3 |
| 3. 2000 in^3 | 4. 576 ft^3 |

Answers to Surface Area [Pg. 18]

- | | |
|------------------------|--------------------------|
| 1. 352 m^2 | 2. 678.24 ft^2 |
| 3. 1000 in^2 | 4. 532 ft^2 |

Answers to Geometry I [Pg. 19]

- Angles ABC and DBE are acute and angles ABD and CBE are obtuse.
- 47 degrees
- 137 degrees
- Pairs of vertical angles are: Angles RST and VSW

Angles RSV and TSW

Pairs of adjacent angles are: Angles RST and TSW Angles RST and RSV
Angles RSV and VSW Angles VSW and WST

Answers to Geometry II [Pg. 20]

- | | |
|-------------|-------------|
| 1. $x = 24$ | 2. $y = 9$ |
| 3. $h = 16$ | 4. $r = 15$ |