

PARENT PACKET

Sail into Summer with Math!



For Students Entering Algebra

Algebra Summer Mathematics Packet Answer Key

Answers to Fraction Operations [Pg. 1]

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|---------------------|--------------------------|-----------------------|--------------------|
| 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]

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|-------------|-------------|----------|------------|
| 1. 123.109 | 2. 1233.188 | 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]

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|----------------------------------|--------------------------------|--|--------------------------------|
| 1. $\frac{1}{25}$, 0.04, 4% | 2. $1\frac{1}{4}$, 1.25, 125% | 3. $\frac{2}{3}$, $\frac{2}{3}$, 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 and Subtract Mixed Numbers [Pg. 4]

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|---------------------|-----------------------|--------------------|
| 1. $9\frac{1}{10}$ | 2. $15\frac{44}{175}$ | 3. $16\frac{4}{9}$ |
| 4. $1\frac{47}{90}$ | 5. $6\frac{53}{60}$ | 6. $5\frac{5}{36}$ |

Answers to Multiply and Divide Mixed Numbers [Pg. 5]

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|----------------------|--------------------|----------------------|---------------------|--------------------|
| 1. $49\frac{11}{21}$ | 2. $22\frac{2}{3}$ | 3. $42\frac{3}{4}$ | 4. $5\frac{19}{20}$ | 5. $\frac{77}{93}$ |
| 6. $\frac{33}{100}$ | 7. $\frac{31}{42}$ | 8. $1\frac{25}{497}$ | 9. $1\frac{52}{63}$ | |

Summer Mathematics Packet

Answers to Squares and Square Roots [Pg. 6]

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|--------|--------|---------|---------|-------|
| 1. 81 | 2. -64 | 3. -64 | 4. 7 | 5. 17 |
| 6. 4 | 7. 16 | 8. -108 | 9. 125 | 10. 3 |
| 11. 75 | 12. 4 | 13. 3 | 14. -14 | |

Answers to Laws of Exponents [Pg. 7]

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|--------------------|--------------------|--------------|-------------|--------------|-----------|
| 1. 5^6 | 2. 7^2 | 3. 12^{12} | 4. 6^{10} | 5. 5^5 | 6. 10^8 |
| 7. $\frac{1}{7^3}$ | 8. $\frac{1}{3^4}$ | 9. 1 | 10. -1 | 11. 3^{21} | 12. 1 |

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

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|-----------|----------|----------|-----------|-----------|------------|
| 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]

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|----------------------|-------------|--------------|
| 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]

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|----------|------------|------------|--------------|------------|----------|----------|
| 1. -9 | 2. -7 | 3. 15 | 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. -31.96 | 17. -20.82 | 18. -104.759 | 19. 15.232 | 20. 60.1 | |

Answers to Integers II [Pg. 11]

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|---------|---------|---------|--------|--------|---------|--------|
| 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]

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|--------------|---------------|-------------|--------------|------------|
| 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]

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|----------------------------------|--------------|--------------|--------------|
| 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 Solving Equations III [Pg. 14]

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|---------------|--------------|------------------------|-------------|-------------|
| 1. $x = 3$ | 2. $t = -40$ | 3. $t = 11\frac{1}{5}$ | 4. $60 = x$ | 5. $t = 11$ |
| 6. $-384 = t$ | 7. $-9 = t$ | 8. $r = 7$ | 9. $x = 10$ | |

Answers to Equations - Variables on Each Side [Pg. 15]

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|-------------|-------------|------------------------|
| 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. 16]

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

Answers to Pythagorean Theorem [Pg. 17]

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|--------------|------------------|-------------------|----------------|
| 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. 18]

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

Answers to Surface Area [Pg. 19]

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|----------------------|--------------------------|------------------------|-----------------------|
| 1. 352 m^2 | 2. 678.24 ft^2 | 3. 1000 in^2 | 4. 532 ft^2 |
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Answers to Problem Solving [Pg. 20]

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|---------------|-----------------------|--------------|
| 1. \$1,747.97 | 2. \$112.00 | 3. 37 |
| 4. \$69.60 | 5. 45 degrees Celsius | 6. 30 inches |