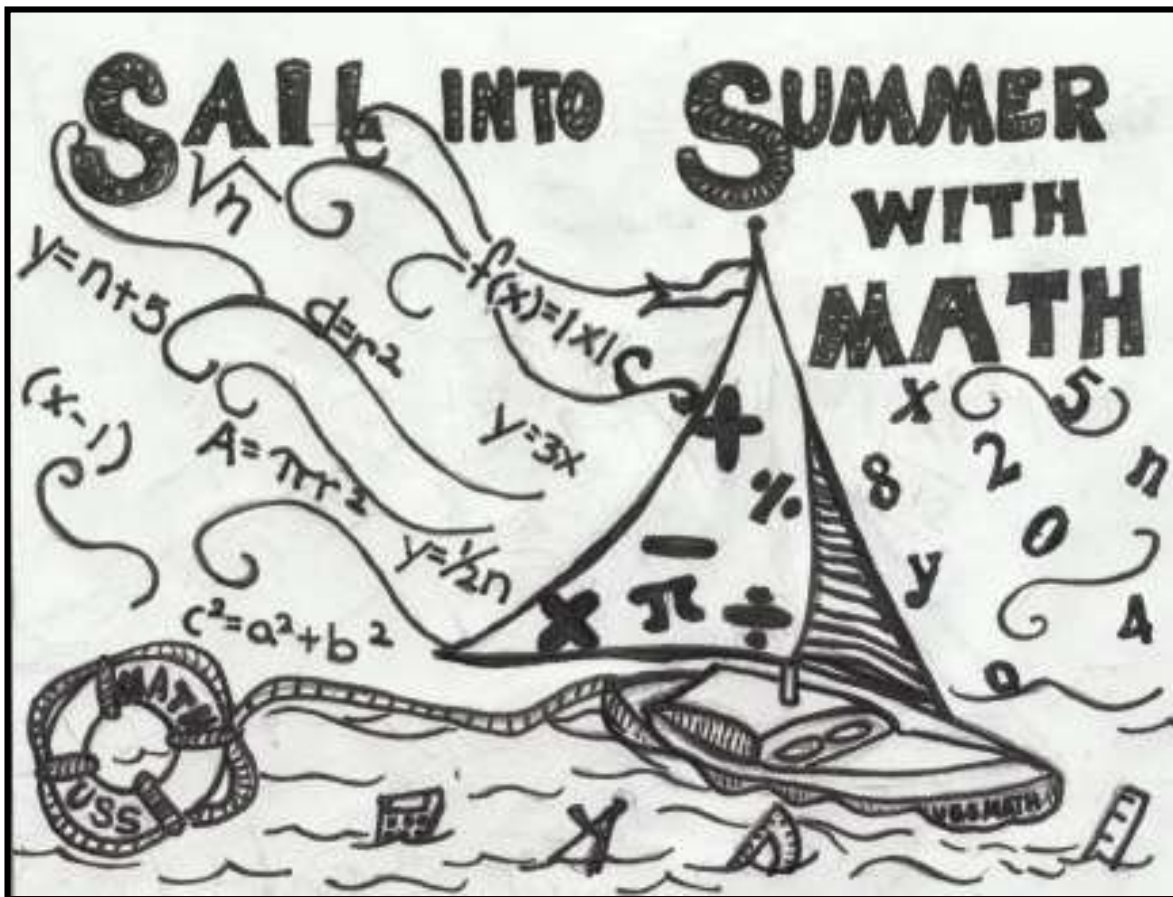


Answer Key

Sail into Summer with Math!



For Students Entering Investigation into Mathematics

This summer math booklet was developed to provide students an opportunity to review grade level math objectives and to improve math performance.

Summer

Investigation into Mathematics Summer Mathematics Packet Answer Key

Answers to Rename Fractions, Percents, and Decimals [Pg. 1]

1. 0.2 2. 0.75 3. 0.5

Note: The line above the number indicates a decimal that repeats forever.

4. $0.\overline{3}$ 5. 0.8 6. 0.6
7. 20% 8. 75% 9. 50%
10. $33\frac{1}{3}\%$ 11. 80% 12. $66\frac{2}{3}\%$
13. 0.08 14. 0.6 15. 0.11
16. 0.12 17. 0.4 18. 0.95

Answers to Fraction Operations [Pg. 2]

1. $\frac{17}{20}$ 2. $1\frac{11}{20}$ 3. $1\frac{13}{45}$ 4. $\frac{1}{12}$ 5. $\frac{8}{45}$ 6. $\frac{23}{55}$
7. $\frac{2}{9}$ 8. $\frac{9}{20}$ 9. $\frac{7}{20}$ 10. $\frac{1}{2}$ 11. 1 12. $1\frac{2}{33}$

Answers to Multiply Fractions and Solve Proportions [Pg. 3]

1. 3 2. $1\frac{2}{5}$ 3. $1\frac{3}{5}$ 4. $2\frac{4}{7}$ 5. $3\frac{1}{5}$ 6. 4 7. $1\frac{3}{4}$
8. n=4 9. n=7 10. n=5 11. n=1 12. n=28 13. n=4 14. n=27 15. n=6

Answers to Add Mixed Numbers [Pg. 4]

1. $10\frac{3}{4}$ 2. $10\frac{13}{15}$ 3. $9\frac{1}{10}$ 4. $9\frac{5}{8}$ 5. $13\frac{13}{14}$
6. $6\frac{8}{9}$ 7. $10\frac{7}{12}$ 8. $7\frac{11}{12}$ 9. $6\frac{8}{9}$

Answers to Subtract Mixed Numbers [Pg. 5]

1. $2\frac{1}{12}$ 2. $6\frac{1}{12}$ 3. $3\frac{5}{12}$ 4. $1\frac{11}{20}$ 5. $4\frac{1}{4}$
6. $1\frac{1}{5}$ 7. $3\frac{4}{5}$ 8. $2\frac{1}{2}$ 9. $1\frac{7}{8}$

Answers to Multiply Mixed Numbers [Pg. 6]

- | | | | | |
|----------------------|-------------------|-------------------|--------------------|--------------------|
| 1. 15 | 2. $3\frac{1}{3}$ | 3. $5\frac{1}{9}$ | 4. $5\frac{7}{10}$ | 5. $22\frac{2}{3}$ |
| 6. $49\frac{11}{21}$ | 7. 6 | 8. 12 | 9. $4\frac{1}{3}$ | |

Answers to Divide Mixed Numbers [Pg. 7]

- | | | | | |
|--------------------|---------------------|---------------------|---------------------|--------------------|
| 1. $\frac{3}{11}$ | 2. $1\frac{11}{28}$ | 3. $\frac{33}{40}$ | 4. $\frac{40}{117}$ | 5. $\frac{77}{93}$ |
| 6. $10\frac{2}{7}$ | 7. $\frac{31}{42}$ | 8. $5\frac{19}{20}$ | 9. $1\frac{52}{63}$ | |

Answers to Decimal Operations [Pg. 8]

- | | | | | |
|-------------|------------|-----------|-----------|------------|
| 1. 23.1 | 2. 244.538 | 3. 31.31 | 4. 1.188 | 5. 44.16 |
| 6. 712.6 | 7. .0882 | 8. 6.612 | 9. 76.884 | 10. 46.004 |
| 11. 201,000 | 12. 36.9 | 13. 325.6 | | |

Answers to Find Percent of a Number [Pg. 9]

- | | | | |
|---------|---------|----------|----------|
| 1. 450 | 2. 2.94 | 3. 32.1 | 4. 8.1 |
| 5. 320 | 6. 64 | 7. 51.12 | 8. 5.7 |
| 9. 348 | 10. 900 | 11. 90% | 12. 2.52 |
| 13. 60% | 14. 4% | 15. 43.5 | 16. 24% |

Answers to Find Elapsed Time [Pg. 10]

- | | | |
|-----------------------|-----------------------|--------------|
| 1. 6 hours 45 minutes | 2. 9 hours | 3. 1:30 p.m. |
| 4. 2:15 p.m. | 5. 3 hours 30 minutes | |

Answers to Solve Money Problems [Pg. 11]

- | | | | |
|---------------|---------------|-------------|-------------|
| 1. \$306.00 | 2. \$142.85 | 3. \$663.45 | 4. \$178.79 |
| 5. \$4,963.32 | 6. \$5,460.00 | 7. \$30.95 | |

Answers to Solve Problems using Percent [Pg. 12]

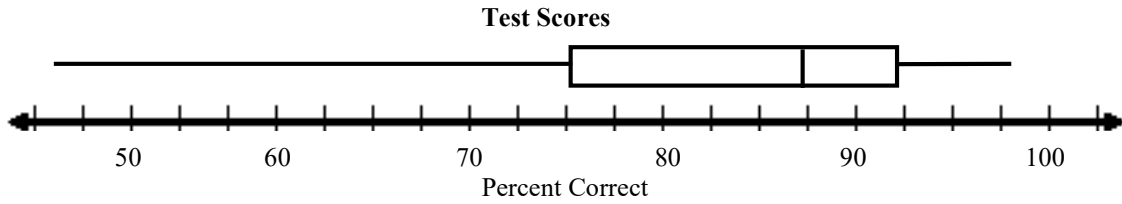
- | | | |
|---|-------------|----------------|
| 1. \$161.70 | 2. \$50.00 | 3. \$3,179.00 |
| 4. Discount = \$49.35, Sale price = \$115.15. | 5. \$147.00 | 6. \$10,000.00 |

Answers to Mean, Median, and Mode [Pg. 13]

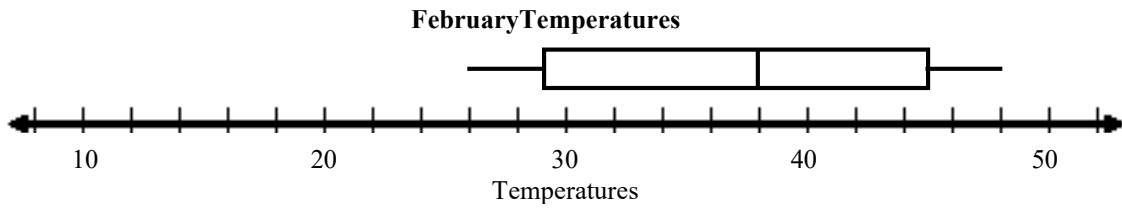
- | | |
|--------------------------------------|--------------------------------------|
| 1. Mean=63, Median=65, Mode=none | 2. Mean=54.696, Med.=55.1, Mode=none |
| 3. Mean=166.5, Median=166, Mode=none | 4. Mean=23.1, Med.=23, Mode=23,27 |
| 5. Mean=5.83, Med.=6, Mode=6,8 | 6. Mean=4.45, Med.=7, Mode=-3,8 |
| 7. Mean=70.2, Med.=67, Mode=none | 8. Mean=22.3, Med.=24, Mode=none |
| 9. Different Answers | 10. Sum = 420 and median is 86. |

Answers to Box-and-Whiskers Plots [Pg. 14]

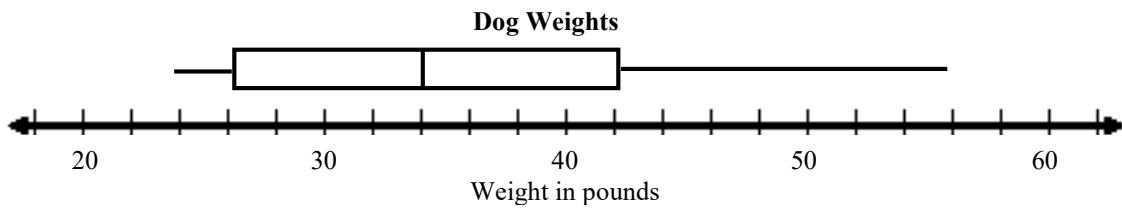
1.



2.



3.



Answers to Integers I [Pg. 15]

- | | | | | | | |
|--------|---------|---------|----------|--------|--------|--------|
| 1. -1 | 2. -9 | 3. -3 | 4. -13 | 5. 12 | 6. 16 | 7. -3 |
| 8. -7 | 9. 10 | 10. -7 | 11. -13 | 12. 11 | 13. 8 | 14. 12 |
| 15. 44 | 16. -30 | 17. -20 | 18. -105 | 19. 15 | 20. 59 | |

Answers to Integers II [Pg. 16]

- | | | | | | | |
|--------|--------|---------|--------|--------|---------|--------|
| 1. -12 | 2. 48 | 3. 24 | 4. -7 | 5. -7 | 6. 6 | 7. -30 |
| 8. -80 | 9. 12 | 10. -15 | 11. -3 | 12. -7 | 13. -1 | 14. -6 |
| 15. 13 | 16. -6 | 17. 10 | 18. 5 | 19. -8 | 20. -22 | |

Answers to Solving Equations I [Pg. 17]

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

Answers to Solving Equations II [Pg. 18]

- | | | |
|-------------|-------------|--------------|
| 1. $t = 7$ | 2. $m = 50$ | 3. $r = -5$ |
| 4. $x = 39$ | 5. $g = -3$ | 6. $y = -24$ |

Answers to Geometry I [Pg. 19]

- Angles ABC and DBE are acute and angles ABD and CBE are obtuse.
- 47 degrees 3. 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. $r = 15$ |
|-------------|------------|-------------|-------------|