

**1.1 Interpret Given Bar Graphs**

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**Answers**

- |               |             |              |           |       |
|---------------|-------------|--------------|-----------|-------|
| 1. \$3.60     | 2. \$3.20   | 3. Missouri  | 4. Hawaii |       |
| 5. \$45.00    | 6. Yes      | 7. \$36.00   | 8. \$2.00 |       |
| 9. \$3.20     | 10. Florida | 11. 83 Teams | 12. 2008  |       |
| 13. 190 Teams | 14. False   | 15. 81       | 16. False | 17. D |

**1.2 Understanding and Interpreting Frequency Tables and Histograms**

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**Answers**

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|-------------------|-------|------------------|----------|--------|
| 1. 33             | 2. 11 | 3. $\frac{1}{3}$ | 4. 33.3% | 5. 4   |
| 6. $\frac{4}{33}$ | 7. 4  | 8. True          | 9. 19    | 10. 17 |
| 11. 10            | 12. 1 | 13. 14           | 14. 15   | 15. 0  |

**1.3 Represent Real-World Data Using Bar Graphs, Frequency Tables and Histograms**

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**Answers**

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|--------------------|---------------------|------------|-------------------|
| 1. 11              | 2. 65               | 3. 30      | 4. 5              |
| 5. Yes             | 6. 35 girls         | 7. 37 boys | 8. $\frac{5}{35}$ |
| 9. $\frac{10}{35}$ | 10. $\frac{15}{35}$ | 11. 43%    | 12. 72            |
| 13. True           | 14. False           | 15. Soccer | 16. Track         |

**1.4 Evaluate Numerical and Variable Expressions Using the Order of Operations**

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**Answers**

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|--------|--------|--------|--------|--------|
| 1. 11  | 2. 8   | 3. 31  | 4. 13  | 5. 6   |
| 6. 23  | 7. 43  | 8. 31  | 9. 11  | 10. 20 |
| 11. 28 | 12. 30 | 13. 19 | 14. 10 | 15. 45 |

**1.5 Connect Variable Expressions and the Order of Operations with Real World Problems**

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**Answers**

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|------------|--------------|--------------|---------------------|
| 1. $4.50x$ | 2. $7y$      | 3. $.89x$    | 4. $3.20x + .45$    |
| 5. $6x$    | 6. $\$6.75y$ | 7. $\$15x$   | 8. $\$3x + \$35.00$ |
| 9. $\$18$  | 10. $28$     | 11. $\$3.56$ | 12. $\$13.25$       |
| 13. $24$   | 14. $27$     | 15. $\$60$   | 16. $\$47$          |

**1.6 Evaluate Numerical and Variable Expressions Involving Powers**

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**Answers**

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|----------|-----------|----------|-----------|----------|
| 1. $27$  | 2. $16$   | 3. $16$  | 4. $64$   | 5. $125$ |
| 6. $64$  | 7. $81$   | 8. $64$  | 9. $58$   | 10. $-9$ |
| 11. $20$ | 12. $6$   | 13. $99$ | 14. $96$  | 15. $2$  |
| 16. $32$ | 17. $230$ | 18. $16$ | 19. $-28$ | 20. $84$ |

**1.7 Use the Order of Operations to Evaluate Powers**

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**Answers**

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|-----------|-----------|-----------|-------------|
| 1. $0$    | 2. $-1$   | 3. $266$  | 4. $27,648$ |
| 5. $-43$  | 6. $35$   | 7. $232$  | 8. $99$     |
| 9. $108$  | 10. $-59$ | 11. $112$ | 12. $25$    |
| 13. $170$ | 14. $-17$ | 15. $221$ | 16. $-60$   |

**1.8 Evaluate Variable Expressions with Given Values**

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**Answers**

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|----------|-----------|-----------|----------|-----------|
| 1. $55$  | 2. $14$   | 3. $76$   | 4. $4$   | 5. $14.5$ |
| 6. $85$  | 7. $31$   | 8. $88$   | 9. $62$  | 10. $782$ |
| 11. $92$ | 12. $160$ | 13. $123$ | 14. $84$ | 15. $46$  |

**1.9 Translate Verbal Phrases into Variable Expressions**

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**Answers**

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|---------------|----------------|--------------|------------------|------------------|
| 1. $x + 12$   | 2. $x - 8$     | 3. $3x$      | 4. $y^2 + 5$     | 5. $x/2 + 7$     |
| 6. $4(x + 6)$ | 7. $2x/4$      | 8. $6x + 2x$ | 9. $x^2 + 7 - 4$ | 10. $x/3 + 12$   |
| 11. $5x + 6y$ | 12. $-4x - 16$ | 13. $8x/2$   | 14. $x/6 + -5y$  | 15. $x/4 + y/16$ |

**1.10 Write and Evaluate Variable Expressions for Given Situations**

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**Answers**

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|---------|---------|--------|---------|--------|
| 1. 24   | 2. 4    | 3. 36  | 4. 149  | 5. 13  |
| 6. 54   | 7. 6    | 8. 96  | 9. 147  | 10. 16 |
| 11. -20 | 12. -17 | 13. 80 | 14. -64 | 15. 47 |

**1.11 Solve and Check Single-Variable Equations Using Mental Math and Substitution**

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**Answers**

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|-------|--------|-------|-------|-------|
| 1. 18 | 2. 22  | 3. 59 | 4. 3  | 5. 6  |
| 6. 6  | 7. 9   | 8. 10 | 9. 40 | 10. 2 |
| 11. 4 | 12. 7  | 13. 6 | 14. 8 | 15. 3 |
| 16. 8 | 17. 16 | 18. 2 | 19. 9 | 20. 6 |

**1.12 Solve Real World Problems by Writing and Solving Single Variable Equations**

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**Answers**

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|-------------------------|---------------------------|
| 1. $x + 3 = 12, x = 9$  | 2. $x - 9 = 14, x = 23$   |
| 3. $x + 6 = 30, x = 24$ | 4. $x - 9 = 5, x = 14$    |
| 5. $x - 6 = 12, x = 18$ | 6. $4x = 140, x = 35$     |
| 7. $27x = 162, x = 6$   | 8. $x/12 = 6, x = 72$     |
| 9. $x/5 = 14, x = 70$   | 10. $x + 19 = 40, x = 21$ |

**1.13 Find Perimeter and Area of Square and Rectangles Using Formulas**

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**Answers**

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|--|--|----------|-----------|
| 1. $P = 20''$ , $A = 25 \text{ in}^2$              | 2. $P = 16''$ , $A = 15 \text{ sq. in}$                |          |           |
| 3. $P = 28 \text{ cm}$ , $A = 48 \text{ sq. cm.}$  | 4. $P = 44 \text{ ft}$ , $A = 121 \text{ sq. ft.}$     |          |           |
| 5. $P = 27''$ , $A = 40.5 \text{ sq. in.}$         | 6. $P = 28 \text{ ft}$ , $A = 49 \text{ sq. ft.}$      |          |           |
| 7. $P = 46 \text{ m}$ , $A = 132 \text{ sq. m}$    | 8. $P = 52 \text{ m}$ , $A = 169 \text{ sq. m}$        |          |           |
| 9. $P = 46 \text{ ft}$ , $A = 120 \text{ sq. ft.}$ | 10. $P = 50 \text{ ft.}$ , $A = 156.25 \text{ sq. ft}$ |          |           |
| 11. 8 in   | 12. 6 in   | 13. 9 m  | 14. 10 in |
| 15. 12 ft  | 16. 11 cm  | 17. 2 mm |           |

**1.14 Use the Formulas for Distance to Find Distances, Rates and Times**

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**Answers**

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|--------------|---------------|--------------------|-----------------|
| 1. 132 miles | 2. 330 miles  | 3. 520 miles       | 4. 600 miles    |
| 5. 840 miles | 6. 950 miles  | 7. 605 miles       | 8. 630 miles    |
| 9. 840 miles | 10. 580 miles | 11. 855 miles      | 12. 1,386 miles |
| 13. 15 hours | 14. 50 mph    | 15. 5 minute miles | 16. 8 hours     |

**1.15 Understand the Problem Solving Plan**

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**Answers**

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|----------------------|------------------------------|
| 1. Working Backwards | 2. You are looking for a sum |
| 3. Min x cost        | 4. $.12(20) + .75 + .85 = x$ |
| 5. \$4.00            | 6. Pattern                   |
| 7. Weeks needed      | 8. $25x + 75 = 500$          |
| 9. 17 weeks          | 10. Pattern                  |
| 11. No sum           | 12. \$24.70                  |
| 13. \$49.40          | 14. \$4.50                   |
| 15. \$9.00           | 16. \$36.00                  |

**1.16 Solve Real World Problems by Using Strategies and a Plan**

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**Answers**

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|-----------------------|----------------------|
| 1. Look for a Pattern | 2. Draw a diagram    |
| 3. 6 weeks            | 4. Write an equation |
| 5. \$14.75            | 6. \$44.25           |
| 7. Equation           | 8. $6(15) = x$       |
| 9. $90 = x$           | 10. 90 cookies       |
| 11. Equation          | 12. $2(90) = x$      |
| 13. $180 = x$         | 14. 180 brownies     |
| 15. Equation          | 16. \$135.00         |