Part I - Circle the best answer for each problem. Each problem is worth 2 points. Partial credit may be awarded for correct work or explanations. Calculators ARE ALLOWED ON THIS PORTION OF THE TEST ONLY.

- 1. Compute  $3.87 + 5.23 \times (-2.97)$ .
  - (a) -11.6631
  - (b) -27.027
  - (c) 27.027
  - (d) 19.4031
- 2. Write  $\frac{1572}{18}$  as a mixed number in lowest terms.

  - (a)  $87\frac{3}{18}$  (b)  $86\frac{24}{18}$
- (c)  $80\frac{6}{18}$
- (d)  $87\frac{1}{3}$
- 3. A rectangular garden has dimensions  $3\frac{7}{8}$  meters by  $2\frac{3}{4}$  meters. Find the area of the garden. Write your answer as a mixed number in lowest terms.

  - (a)  $6\frac{5}{8}$  m<sup>2</sup> (b)  $10\frac{21}{32}$  m<sup>2</sup> (c) 12 m<sup>2</sup> (d)  $\frac{53}{8}$  m<sup>2</sup>

- 4. Combine like terms: 3.89x - 9.773y + 2.951x + 6.9y
  - (a) 6.841x 2.873y
  - (b) 6.841x + 16.67y
  - (c) 0.939x 16.67y
  - (d) 2.873x + 6.841y
- 5. Compute  $-\frac{14}{72} + \frac{82}{91}$ . Write your answer in lowest terms.
  - (a)  $\frac{3589}{3276}$
- (b)  $\frac{2315}{3276}$
- (c)  $\frac{68}{163}$
- (d)  $\frac{96}{163}$

Part II - Circle the best answer for each problem. Each problem is worth 2 points. Partial credit may be awarded for correct work or explanations. Calculators ARE NOT ALLOWED ON THIS PORTION OF THE TEST.

- 1. Find the least common multiple of 8, 16, and 12.
  - (a) 4
  - (b) 48
  - (c) 1536
  - (d) 32
- 2. Add and write your result as an improper fraction in lowest terms:
  - (a)  $\frac{7}{9}$
  - (b)  $\frac{21}{8}$  (c)  $\frac{5}{4}$

  - (d)  $\frac{7}{8}$
- 3. Solve for x:  $x + \frac{1}{4} = \frac{3}{5}$ 
  - (a)  $x = \frac{17}{20}$
  - (b)  $x = \frac{3}{20}$
  - (c) x = 2
  - (d)  $x = \frac{7}{20}$
- 4. Solve for w:  $\frac{3}{4}w \frac{1}{8} = \frac{1}{2}$ 
  - (a)  $w = \frac{5}{6}$
  - (b)  $w = \frac{4}{15}$
  - (c) w = 6
  - (d)  $w = -\frac{1}{8}$

- 5. Convert  $-12\frac{3}{4}$  to an improper fraction.
  - (a)  $-\frac{51}{4}$
  - (b)  $-\frac{45}{4}$
  - (c)  $-\frac{15}{4}$
  - (d)  $-\frac{36}{4}$
- 6. Add and write your result as a mixed number in lowest terms:  $5\frac{2}{3} + 3\frac{5}{6}$ 
  - (a)  $8\frac{3}{6}$
  - (b)  $9\frac{1}{6}$
  - (c)  $9\frac{1}{2}$
  - (d)  $\frac{56}{6}$
- 7. Subtract and write your result as a mixed number in lowest terms:  $13 9\frac{3}{8}$ 
  - (a)  $4\frac{5}{8}$
  - (b)  $3\frac{5}{8}$
  - (c)  $-4\frac{3}{8}$
  - (d)  $4\frac{3}{8}$
- 8. A recipe calls for  $1\frac{2}{3}$  cups of sugar. How much sugar is required for  $\frac{3}{4}$  of the recipe?
  - (a)  $\frac{5}{4}$  cups
  - (b)  $\frac{9}{20}$  cups
  - (c)  $\frac{29}{12}$  cups
  - (d) 2 cups

- 9. Which one of these is the correct word name for 52.7?
  - (a) Fifty-two point seven
  - (b) Fifty-two and seven hundredths
  - (c) Fifty-two point seven tenths
  - (d) Fifty-two and seven tenths
- 10. Which one of these improper fractions is equivalent to 45.009?
  - (a)  $\frac{459}{10000}$
  - (b)  $\frac{45.009}{10}$
  - (c)  $\frac{45009}{1000}$
  - (d)  $\frac{459}{10}$
- 11. Which one of these numbers is greater than -0.5647?
  - (a) -1.0
  - (b) -0.565
  - (c) -0.5648
  - (d) -0.56
- 12. Multiply:  $9.876 \times 0.001$ 
  - (a) 9876
  - (b) 0.09876
  - (c) 987.6
  - (d) 0.009876

- 13. Round 89.5428 to the nearest hundredth.
  - (a) 90
  - (b) 100
  - (c) 89.54
  - (d) 89.543
- 14. Which of the following is a reasonable estimate for  $9\frac{1}{4} 17\frac{1}{9}$ ?
  - (a) -8
  - (b) 26
  - (c) -7
  - (d) 8
- 15. Multiply:  $13.9008 \times 1000$ 
  - (a) 0.0139008
  - (b) 1,390.08
  - (c) 13,900.8
  - (d) 0.139008
- 16. John hiked  $\frac{3}{5}$  mi, took a 5-min break, and then hiked another  $\frac{3}{8}$  mi. How far did John hike in all?
  - (a)  $\frac{6}{13}$  mi
  - (b)  $\frac{39}{40}$  mi
  - (c)  $\frac{3}{7}$  mi
  - (d)  $1\frac{1}{8}$  mi

- 17. Solve for x:  $20 = 6 \frac{2}{3}x$ 
  - (a) x = -21
  - (b)  $x = -\frac{28}{3}$
  - (c) x = 10
  - (d)  $x = -\frac{20}{6}$
- 18. Write  $\frac{46}{4}$  as a mixed number in lowest terms.
  - (a)  $11\frac{1}{4}$
  - (b)  $10\frac{2}{4}$
  - (c)  $11\frac{1}{2}$
  - (d)  $46\frac{1}{4}$
- 19. Divide and write your result as a mixed number in lowest terms:  $2\frac{1}{3} \div 1\frac{3}{4}$ 
  - (a)  $2\frac{1}{4}$
  - (b)  $4\frac{1}{12}$
  - (c)  $\frac{12}{49}$
  - (d)  $1\frac{1}{3}$
- 20. Evaluate x + 2y when  $x = 5\frac{1}{4}$  and  $y = \frac{7}{8}$ .
  - (a)  $\frac{15}{8}$
  - (b) 7
  - (c)  $6\frac{1}{8}$
  - (d)  $\frac{7}{4}$