

Name _____

Score _____

Cumulative Test 3A

Math Course 3
Also take Power-Up Test 3

1. Flying at an average speed of 580 miles per hour, how far would a plane fly in $2\frac{1}{2}$ hours?

6. What is the perimeter of a rectangular picture frame that is $14\frac{1}{2}$ inches tall and $11\frac{1}{2}$ inches wide?

2. At 7 a.m., the temperature was 48°F. By noon the temperature was 63°F. By how many degrees did the temperature increase?

7. Write the prime factorization of 630.

8. How much money is 30% of \$25.00?

3. A whole pizza is cut into twelfths. If Dexter eats $\frac{1}{2}$ of the pizza and Landry eats $\frac{1}{3}$ of the pizza, then what fraction of the pizza remains?

9. Arrange in order from least to greatest.
0, -1, $\frac{1}{2}$, 1.2, $\frac{4}{3}$, 1

5. How many square yards of carpet are needed to cover the floor of a room that is 15 feet long and 12 feet wide? (1 yd = 3 ft)

10. The coordinates of three vertices of a square are (3, 2), (-1, 2), and (-1, -2). What are the coordinates of the fourth vertex?

11. Compare: $\frac{5}{3}$ ○ $\frac{9}{16}$

12. Compare: 0.375 ○ 0.38

17. $3\frac{5}{8} - 1\frac{1}{2}$

13. Find $4ac$ when a is 3 and c is 5.

18. $10^2 - \sqrt{100}$

For questions 14 and 15, solve by inspection.

14. $2x + 3 = 15$

19. $\frac{\$56.84}{14}$

15. $y - 12 = 7$

20. Maria liked to comparison shop. She found the price of the item she wanted at five different stores. \$29.85, \$28.95, \$32.99, \$29.89, \$26.59
What is the median of these prices?

For questions 16–19, simplify the expression.

16. $\frac{5}{9} + \frac{1}{3}$

1. $580 \times 2.5 = 1450$ miles

2. $518^\circ F - 48^\circ F = 15^\circ C$

3. $\frac{1}{2}$ of 12 = 6 pieces
 mult. $\frac{1}{3}$ of 12 = 4 pieces
 Divide $\frac{2}{18}$ left = $\frac{1}{6}$ pieces

4. -4 quarters in \$1
 -- we have 3 20.
 $4 \times 20 = 80$ quarters

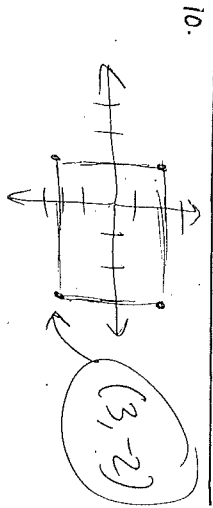
5. $15 \text{ ft} \times 12 \text{ ft} = 180 \text{ ft}^2$
 $\div 3 = 60$
 $5 \text{ yds.} \times 4 \text{ yds} = 20 \text{ yds}^2$
 -- but we need yds!

6. P = add all sides
 $14\frac{1}{2} + 14\frac{1}{2} + 11\frac{1}{2} + 11\frac{1}{2}$
 $14.5 + 14.5 + 11.5 + 11.5 = 52 \text{ in.}$

7. $630 = 2 \cdot 3 \cdot 3 \cdot 5 \cdot 7$
 or $630 = 2 \cdot 3^2 \cdot 5 \cdot 7$

8. 30% of \$25
 mult. $\frac{30}{100}$ of 25
 $25 \div 100 = .25$
 $.25 \times 25 = 6.25$

9. 0, -1, $\frac{1}{2}$, 1, 2, $\frac{4}{3}$, 1
 least $-1, 0, \frac{1}{2}, 1, 1.2, \frac{4}{3}$
 greatest



11. $\frac{5}{3} > \frac{9}{16}$
 $\frac{5}{3} = 1\frac{2}{3}$
 $\frac{9}{16} = 0.5625$

12. $0.375 < 0.380$

13. 4 ac when a is 3
 $4 \cdot 3 \cdot 5 = 12 \cdot 5 = 60$

14. $2x + 3 = 15$
 $(12) + 3 = 15$
 $2 \cdot 6 = 12$, so $x = 6$

15. $y - 12 = 7$
 $\frac{12}{+7} = 19$

16. $\frac{5x^2}{9} - \frac{1}{3} = \frac{3}{9}$
 $\frac{5x^2}{9} - \frac{3}{9} = \frac{3}{9}$
 $\frac{5x^2}{9} = \frac{6}{9}$
 $5x^2 = 6$
 $x^2 = \frac{6}{5}$
 $x = \sqrt{\frac{6}{5}}$

17. $\frac{35}{8} - 1\frac{1}{2} = \frac{29}{8}$
 $\frac{29}{8} = 3\frac{5}{8}$
 $2\frac{1}{8}$ or $\frac{17}{8}$

18. $16^2 - \sqrt{100} = 256 - 10 = 246$

19. $\frac{\$56.84}{14} = \4.06
 DIVIDE

20. Put in order, then find middle #
 $\$26.59, \$28.95, \$29.85, \$29.84, \$32.00$
 $\$29.85$