Name:	Class:	Date:	ID: A

Mental Math Workout #5

Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

- 1. Which of the following numbers is a composite number?
 - a. 1

c. 99

b. 47

- d. 109
- 2. Which of the following powers is the same as 2^6 ?
 - a. 4^3

c. 32^2

b. 3⁴

- d. 8³
- 3. Which number is the greatest?
 - a. 329 500
 - b. $2 \times 10^5 + 4 \times 10^4 + 5 \times 10^3 + 2 \times 10^2 + 6 \times 10 + 5 \times 1$
 - c. 1.2×10^6
 - d. $1 \times 10^6 + 4 \times 10^3 + 5 \times 10$
- 4. A pair of sunglasses costs \$22.50. Goods and services tax (GST) is 7%. What is the amount of goods and services tax (GST) you pay when you buy the sunglasses?
 - a. \$0.70

c. \$3.21

b. \$1.58

- d. \$6.52
- 5. The price of a used canoe is \$350.00. What is the purchase price of the canoe including 15% tax?
 - a. \$297.50

c. \$402.50

b. \$365.00

d. \$500.00

Short Answer

- 6. What is the GCF of 225 and 415?
- 7. Write the number 64 as a power with base 2.
- 8. Use <, >, or = to make the statement true:
 - $0.7 \quad 0.\overline{7}$
- 9. What is the value of x in the proportion 1.2: x = 1.44: 2.76?
- 10. What is 0.8% of \$2500?

Problem

- 11. Find two composite numbers whose sum is a prime number.
- 12. A square field has an area of 4200 m². Calculate the side length of the field.
- 13. Is the sum of all the prime numbers between 20 and 40 a prime number? Explain how you know.
- 14. What is the GCF of two prime numbers? Why?

15. Insert brackets to make the following statement true:

$$6^2 \div 2^3 + 1 \times 3 = 12$$

- 16. A garage charges a one-time fee of \$25.00 to inspect a car plus an additional \$55.00 per hour to fix it. John took his car to the garage and the total cost was \$245.00. How many hours did it take to fix his car?
- 17. Two numbers are in the ratio of 5 to 11. Their sum is 48. What are the two numbers?
- 18. To make a batch of 18 muffins, Jay needs $\frac{3}{4}$ cups of flour, $1\frac{1}{4}$ cups of sugar and $\frac{1}{3}$ cup of milk.
 - Calculate the amount of each ingredient Jay needs to make 90 muffins.
- 19. Steve drives his minibike at a speed of 28 km/h.
 - a. Express the speed in m/s.
 - b. How many seconds will it take Steve to travel 100 m?
- 20. Maggie deposited \$375 in a bank account that pays interest at a rate of 4.8% per year. How much interest will she earn in 30 months?