

MATH 01 - Arithmetic, Sec. B

Third test. Time allowed: one hour. Professor Luis Fernández

NAME:_____

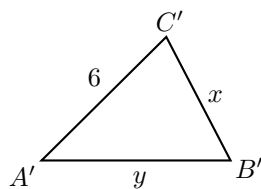
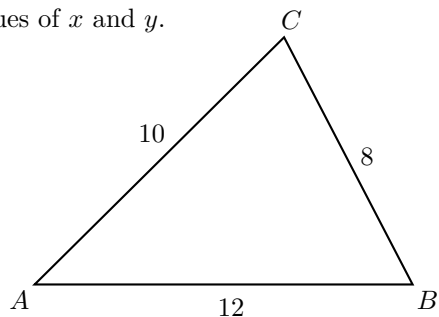
INSTRUCTIONS: Solve the following 22 exercises. Each is worth 5 points. **You must show all your work** in order to receive any credit. This includes all **sums**, **long divisions**, etc.

1. How much is 31% of 54?
2. How much is 131% of 20?
3. What percent of 12 is 3?
4. What percent of 25 is 52?
5. 20% of what number is 20?
6. 12% of what number is 18?
7. How much is $\frac{3}{4}$ of 36?
8. Peter bought 6 toy cars for \$33. How much do 13 cars cost?

9. An ice cream factory makes 72 quarts of ice cream in 2 hours. How many quarts could be made in 15 hours?

10. The dosage of a certain medication is 5 ounces for every 60 pounds of body weight. How many ounces of the medication are required for a person who weighs 192 pounds?

11. In the following triangles, $\angle A = \angle A'$, $\angle B = \angle B'$, and $\angle C = \angle C'$. Given the lengths in the picture, find the values of x and y .



12. Evaluate $3x + 5$ when $x = 7$

13. Evaluate $\frac{x + 3y}{2xy}$ when $x = 3$ and $y = -2$.

14. Given the formula $P = nRT$,
find P when $n = 10$, $R = 3$, $T = 5$.

15. Given the formula $F = \frac{9}{5}C + 32$,
find F when $C = 40$.

16. Suppose that $f(x) = 2x + 4$. Find $f(3)$.

17. Suppose that $f(x) = x^2 + 2$. Find $f(-2)$.

18. Solve the equation $2x + 7 = 13$.

19. Solve the equation $5x + 2 = 2x + 11$.

20. Solve the equation $-6x + 4 = 6 - 2x$.

21. Solve the equation $\frac{5x}{3} = 25$.

22. The formula $P = D(1+r)^t$ gives the amount of money in an investment after t years when the initial invested amount is D dollars and the interest rate is r (r written as a decimal). Find P after 2 years when the initial investment was \$1000, at an interest rate of 10%.