

MATH 9 - CHAPTER 8 & 9 - PRETEST

parent/guardian signature

Multiple Choice - PART 1 - NON-CALCULATOR - 10 MINUTES

Circle the choice that best completes the statement or answers the question.

1. What is the value of m if $\frac{3m}{5} = 3.5$?

- a. $m = 2.1$
- b. $m = 5.83$
- c. $m = 7.75$
- d. $m = 9.5$

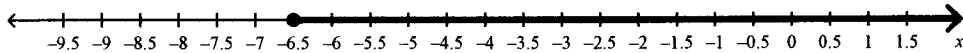
2. Solve the following: $5s + 4 = 22$.

- a. $s = 2.4$
- b. $s = 3.6$
- c. $s = 18$
- d. $s = 22$

3. The statement "The boy appears to be at least 10 years old" can be represented by the inequality

- a. $a > 10$
- b. $a \geq 10$
- c. $a < 10$
- d. $a \leq 10$

4. Choose the statement that best represents what is on the number line below.



- a. A number is greater than -6.5 .
- b. A number is greater than or equal to -6.5 .
- c. A number is less than -6.5 .
- d. A number is less than or equal to -6.5 .

5. Solve $y + 7 > 12$.

- a. $y > 5$
- b. $y > 19$
- c. $y < 5$
- d. $y < 19$

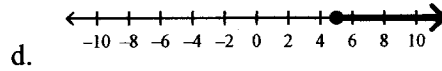
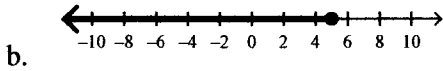
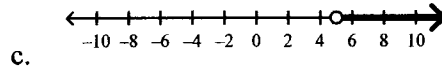
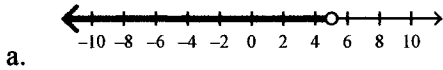
6. What is the solution to the inequality $8 - 3x < 5$?

- a. $x > 1$
- b. $x < 1$
- c. $x < -1$
- d. $x > -1$

Multiple Choice - PART 2 - CALCULATOR may be used after 10 minutes

7. A rectangle has a width of $r + 3$ cm and a length of $2r + 9$ cm. The perimeter of the rectangle is
- 6 cm
 - 12 cm
 - $r + 6$ cm
 - $6(r + 4)$ cm
8. Solve $0.8p = 3.6$.
- $p = 0.22$
 - $p = 0.4$
 - $p = 2.88$
 - $p = 4.5$
9. Solve $\frac{10.85}{a} = 3.5$.
- $a = 0.31$
 - $a = 0.323$
 - $a = 3.1$
 - $a = 37.975$
10. Solve the following: $\frac{3.2a}{4} + 6.2 = 7.32$.
- $a = 0.8$
 - $a = 1.12$
 - $a = 1.4$
 - $a = 1.92$
11. Solve the following: $3(2x + 3) = 12$.
- $x = 0.5$
 - $x = 1.5$
 - $x = 2.0$
 - $x = 3.5$
12. Solve $5\left(\frac{4z}{3} + 3\right) = 11$.
- $z = -0.5$
 - $z = -0.6$
 - $z = -1.5$
 - $z = -1.6$
13. What is $5.1d + 2.7 = 3.9d - 2.7$?
- $d = 4.5$
 - $d = 0.675$
 - $d = 2.25$
 - $d = -4.5$

14. Which number line can represent the statement, "Only children at least 5 years old may swim in the wave pool"?



15. A stockbroker must sell metal-company stock when the price is between \$2.50 and \$3.00 per share. Which inequality represents this situation?

- a. $2.50 \geq p \geq 3.00$ b. $2.50 > p > 3.00$ c. $2.50 \leq p \leq 3.00$ d. $2.50 < p < 3.00$

16. Solve $7 < \frac{1}{2}x$.

- a. $x < 3.5$ b. $x < 14$ c. $x > 14$ d. $x > 3.5$

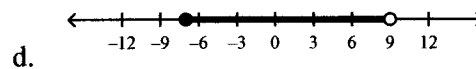
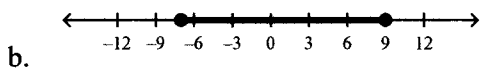
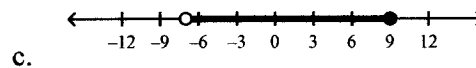
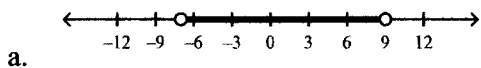
17. Determine the solution to $-3\frac{1}{3}x < -16\frac{1}{2}$.

- a. $x > 4\frac{19}{20}$ c. $x > 55$
 b. $x < 4\frac{19}{20}$ d. $x < 55$

18. The cost of a large cheese pizza is \$12.25, plus \$1.55 for each extra topping. Ellen has \$20 to spend on pizza. How many extra toppings can she afford?

- a. 5 b. 7 c. 8 d. 13

19. What is the solution to the following combination of inequalities: $3x + 5 \geq -16$ and $x + 5 < 14$



Show your work.

20. Frank did the following calculations to solve. **Prove that this answer is not correct.**

$$3(2g + 2.5) = 15.9$$

$$6g + 7.5 = 15.9$$

$$6g = 23.4$$

$$g = 3.9$$

21. Solve and show your work.

$$3(2.1b - 1.2) = 4(0.7b + 0.85)$$

22. a) Create an inequality that requires you to reverse the inequality symbol.

b) Solve your problem.

Problem

23. In a 48-member high school band, $\frac{5}{8}$ of the students are in the strings section. The strings section held a fundraising sale of coupon books. They sold 270 books.

a) Determine the average number of books sold by each student in the strings section.

b) How many books would be sold by the entire band, if each student was able to sell the average number of books sold by the students in the strings section?

24. Julia must keep her cell-phone bill below \$65 per month. The basic charge is \$25 and it costs her \$3 per min for long-distance phone calls.

a) What inequality can be used to determine how many long-distance minutes Julia can afford?

b) How many minutes of long-distance phone calls can Julia make?