Test - Unit #3 (REVIEW)

Evaluate using order of operations.
All fraction answers need to be simplified.
PEMDAS

1. $\left(\dfrac{2}{5}\right)^2 + \dfrac{1}{5}$

2. $66.42 \div 8.2 + 3.1 \times 5.1$

Evaluate. Round to the nearest tenth.

3. 11.3^3

Solve each equation.

4. $28 = 4x$

5. $28 = x - 18$

6. $x + 10 = 13$

7. $1.9 = \dfrac{x}{19.8}$

8. $14.1x = 71.91$

9. $x - 19.8 = 15.2$

Evaluate.

10. $\left(\dfrac{3}{7}\right)^2$

11. Sally drove to her uncle's house. It took her 4 hours to get there. She drove at an average speed (rate) of 52 mph. How many miles did she drive?
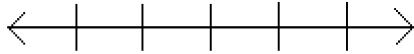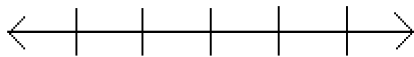(distance = rate × time)

_____ miles

Evaluate the expression.

12. $2a - 3b$, when $a = 15$ and $b = 9$

Graph each inequality.
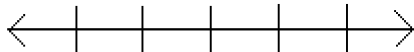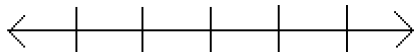
13. $y \geq 4$

$$\longleftarrow\!\!\mid\!+\!\mid\!+\!\mid\!+\!\mid\!+\!\mid\!\longrightarrow$$

14. $g < -11$

$$\longleftarrow\!\!\mid\!+\!\mid\!+\!\mid\!+\!\mid\!+\!\mid\!\longrightarrow$$

Solve and graph each inequality.
(2 Points Each)

15. $x + 8 \geq 11$

$$\longleftarrow\!\!\mid\!+\!\mid\!+\!\mid\!+\!\mid\!+\!\mid\!\longrightarrow$$

16. $9k \leq 81$

$$\longleftarrow\!\!\mid\!+\!\mid\!+\!\mid\!+\!\mid\!+\!\mid\!\longrightarrow$$

17. $c - 9 < 19$

$$\longleftarrow\!\!\mid\!+\!\mid\!+\!\mid\!+\!\mid\!+\!\mid\!\longrightarrow$$
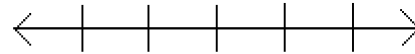
Evaluate using the distributive property.

18. $5(x - 2)$

19. $7(a + 3b)$

Simplify each algebraic expression.

20. $6x + 3x + 7y - 3y + 12$

21. $8(3g + 3) + 8g + 11$

22. $5b^3 + 6b^2 + 2b^2 + 6b - 2$

Test - Unit #3 (REVIEW)
Answer Section

1. 9/25
2. 23.91
3. 1,442.9
4. 7
5. 46
6. 3
7. 37.62
8. 5.1
9. 35
10. 9/49
11. 208
12. 3
13. Shaded in point on 4, arrow pointing to the right
14. Point not shaded in on −11, arrow pointing to the left
15. $x \geq 3$
    Point Shaded In
    Arrow to the Right
16. $k \leq 9$
    Point Shaded In
    Arrow to the Left
17. $c < 28$
    Point Not Shaded In
    Arrow to the Left
18. 5x-10
19. 7a+21b
20. 9x+4y+12
21. 32g+35
22. $5b^3 + 8b^2 + 6b - 2$