Mixed Review

1. Solve and check:

$$-\frac{2}{3}m+\frac{1}{3}m-10=-2$$

Check:

2. Solve and graph the solution set.

$-2(2x - 4) > 8(x + 1)$

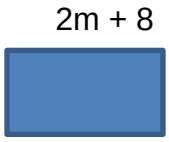
3. The temperature at 6am was -4^0 F. By noon it had gone up by 3^0 F. By dusk the temperature had dropped by 15^0 F. What was the temperature at dusk?

4. Factor using the GCF:

a) $9x - 3y$

b) $4x^2 + 48x$

5. The perimeter of the rectangle pictured below is 400 inches. Find the value of m.



6. Maria is saving money in order to purchase a pair of rollerblades. She has already saved $45.50 and plans to save an additional $7.25 every week. Write and solve an equation to find the number of weeks Maria must save in order to afford the rollerblades if they cost $60. *Remember to define your variable*.

7. Subtract 2x – 5 from -9x + 1

8. Find two consecutive integers that sum -65.

9. Evaluate x – y when x = 4 and y = $-\frac{2}{3}$.

10. Ali wants to spend at most $10 for a taxi ride. There is an initial charge of $2 for the taxi. The meter then adds $1.25 for every mile. Write and solve an inequality to find the maximum number of whole miles Ali can ride in the taxi. *Remember to define your variable.*

11. Change $-4\frac{2}{3}$ to an **improper fraction**_____

12. **Round** 0.06431 to the nearest **thousandth**_____

13. Find the **sum** of $(7x^2 + 2x)$ and $(-3x^2 + 1x)$_____

14. **True/False:** -1.5 is an integer._____

15. Write an **expression** for: 6 subtracted from three times a number._____

16. **Evaluate** 7^{-2}_____

17. **Add**: $-\frac{1}{2}+\frac{1}{7}$_____

18. **Simplify**: $-5(6a + 9)$_____

19. Change $\frac{17}{3}$ to a **mixed number**_____

20. Name the **coefficient** of the term –6*x*_____

21. Which pairs of numbers are **relatively prime?** *(there can be more than one answer)*
a) 14 and 20 b) 25 and 36 c) 13 and 17 d) 9 and 3

22. Which equation is an example of the **commutative property of multiplication**?
a) 5 × 0 = 0 b) 5(2+3) = 5(2) + 5(3)
c) 4 × 2 × 3 = 3 × 2 × 4 d) 5 × 1 = 5

23. Find the **GCF** of ***8xy* and *24x³.***
a) 4x b) 8x c) $2xy^2$ d) $4x^3$

24. The $\sqrt{40}$ is in between which two numbers?
a) 5 and 6 b) 6 and 7 c) 7 and 8 d) 8 and 9

25. Write an **expression** to find the **perimeter** of the rectangle below.

x + 6

26. **Solve for *x* and check**.
$\frac{5}{7}x + 6 = 11$

Check:

27. At 5PM the temperature was -9.7 degrees. By midnight, it had decreased by 6.8 degrees. What was the temperature at midnight?

28. Yesterday the temperature had changed $-\frac{2}{5}$ degrees per hour. What statement describes the change after 10 hours?

A. The temperature increased by 4 degrees.

B. The temperature decreased by $10\frac{2}{5}$ degrees

C. The temperature fell by 4 degrees.

D. The temperature remained the same.

29. Simplify 5x – 1 – (2x – 4)

30. The perimeter of a square is 16g + 96 inches. Write an expression for one side of the square.

31. $\sqrt{42}$ is in between which two integers?

32. $-\frac{1}{2}(8x - 5)$

33. Simplify: 0.25x – 0.30 is subtracted from 4.7x + 1.2

34. Find three consecutive integers whose sum is 126.