Exercises Day 1 Name _____

Mailbox _____

Round:

Round the number **4268.9493** to the nearest...

_____ 1. Hundreds

_____ 2. Hundredths

_____ 3. Integer

Convert to standard notation:

4. $1.32 \times 10^{-4} =$

5. $1.6475 \times 10^{2} =$

Simplify the following expressions:

6. $\left[\frac{27-\frac{(8+3)^2}{2}-\frac{1}{4}+1}{(2-4)^2}\right]^2 =$

7. $5xy + 2x^2y - xy + 4xy =$

8. $3xy - y^2 - x^2 + 4y - 3x^2 =$

9. $8^{\frac{1}{4}} =$

10. Here is the formula for body mass index:

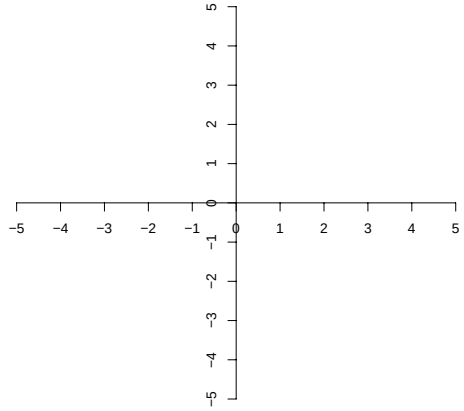
$$\text{BMI} = \frac{w}{h^2}$$

where w = weight in kilograms and h = height in meters. What is the body mass index for someone who weighs 65 kg and is 1.8 meters tall?

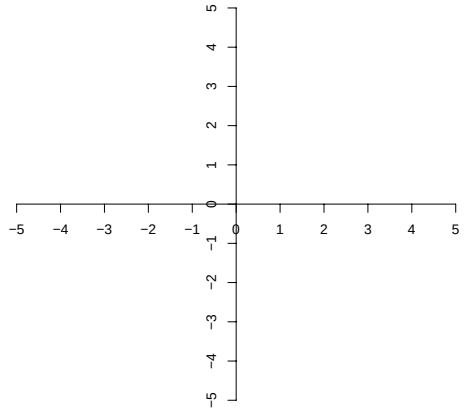
11. What is the body mass index for someone who weighs 140 lbs and is 68 inches tall?

Graph the following functions:

12. $y = 2 - x$



13. $2y - 4 = 3x + y + 1$



Solve the following equations and check where appropriate:

14. $9b + 24 = 72 - 3b$

15. $3(x - 1) - 12 = 3$

16. $|6 - 3| =$

17. $|6 + 3| =$

18. $5 + |15x - 10| = 5$

19. $x - 3 > 2x + 12$

Find and graph the equation of the lines through these points:

20. (3,1) (8,6)

21. (4,0) (2,1)

Use the quadratic equation to solve the following equation, and check your solution:

22. $x^2 + 2x - 15 = 0$