

## Prealgebra: Unit 1 Review

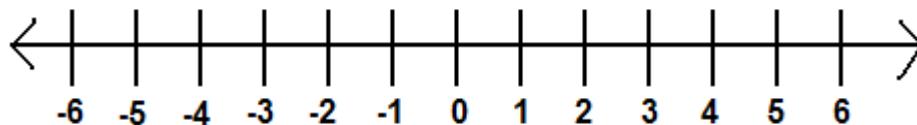
### “Types of Numbers”

- 1.) Identify the types of numbers for the number 5
- 2.) Identify the types of numbers for the number -3
- 3.) Identify the types of numbers for the number 0
- 4.) Identify the types of numbers for the number  $\frac{5}{4}$
- 5.) Identify the types of numbers for the number  $5\pi$
- 6.) Identify the types of numbers for the number  $\sqrt{2012}$

### “Numbers as Decimals”

- 1.) Convert to a decimal: 5
- 2.) Convert to a decimal:  $\frac{7}{3}$
- 3.) Convert to a decimal:  $\sqrt{1024}$
- 4.) Convert to a decimal:  $-4\frac{3}{7}$
- 5.) Convert to a decimal:  $\frac{11\pi}{8}$
- 6.) Convert to a decimal:  $-3.5^2$

### “Number Lines”



- 4.) Place the following points on the given number line.

(A) -5.3

(D)  $-2\frac{1}{5}$

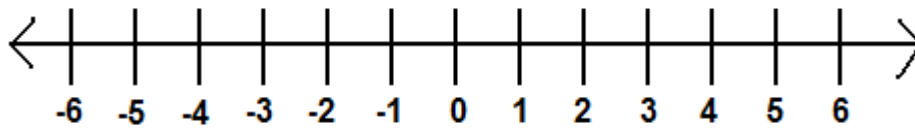
(B)  $\sqrt{6}$

(E)  $1.5^2$

(C)  $\frac{8\pi}{5}$

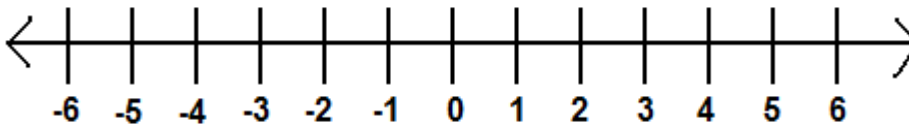
(F)  $\frac{3}{7}$

5.) Place the following points on the given number line.



- |                      |                    |
|----------------------|--------------------|
| (A) $-2.2$           | (D) $4\frac{1}{4}$ |
| (B) $-\sqrt{10}$     | (E) $-2^2$         |
| (C) $\frac{2\pi}{9}$ | (F) $\frac{14}{7}$ |

6.) Place the following points on the given number line.



- |                  |                     |
|------------------|---------------------|
| (A) $-3.7$       | (D) $-1\frac{2}{3}$ |
| (B) $-\sqrt{20}$ | (E) $1.5^3$         |
| (C) $2\pi$       | (F) $\frac{-20}{5}$ |

### “Order of Operations”

- 1.)  $5 - 4 \div 2 \times 2 + 1$
- 2.)  $(2 + 3)^2 - (5 + 1) \div 3 - 2$
- 3.)  $(7 + 3) \div 5 - 3 + 4$
- 4.)  $2^2 + 3^2 - 4^2$
- 5.)  $60 \div 4 \times 3 \times 2 - 8 \div 2 + 2$
- 6.)  $\frac{3^2 - 16 \div 8 \times 2}{4 - 3 \times 2}$

### “Solving One-Step Equations”

- 1.)  $5x = 42$
- 2.)  $x + 20 = -50$
- 3.)  $-35 + x = -20$
- 4.)  $-8x = 20$
- 5.)  $\frac{4}{5}x = 25$
- 6.)  $2\frac{3}{4}x = -10$

### “Evaluating Expressions”

- 1.) If  $x = -5$ , evaluate  $5x + 8 = ?$
- 2.) If  $a = 4$ ,  $b = -3$ , evaluate  $ab + b^2 = ?$
- 3.) If  $x = -2$ ,  $y = 5$ , evaluate  $5x - 4y = ?$
- 4.) If  $a = 2$ ,  $b = 3$ ,  $c = -4$ , evaluate  $abc - a = ?$
- 5.) If  $a = 2$ ,  $b = -3$ ,  $c = 4$ ,  $d = -5$  evaluate  $ab - cd + b^2 = ?$
- 6.) If  $x = 4$ ,  $y = -10$  evaluate  $x^2 + 3x + y^2 - 5y = ?$

### “Ratios”

- 1.) Solve for  $x$ :  $\frac{2}{x} = \frac{18}{21}$
- 2.) Solve for  $x$ :  $\frac{x}{5} = \frac{34}{85}$
- 3.) There are 2 boys for every 3 girls in a first grade class.  
If there are 12 girls in the class, how many boys are there?
- 4.) There are 5 pencils for every 3 pens in a drawer.  
If there are 85 pencils, how many pens are there?
- 5.) There are 3 carrots for every 7 tomatoes.  
If there are a combined 90 carrots and tomatoes, how many carrots are there?
- 6.) There are 5 baseballs for every 2 basketballs in a storage room.  
If there is a total of 154 balls in the room, how many are baseballs?

### “Solving for Missing Information”

- 1.) What is 34% of 300?
- 2.) What is 28% of 900?
- 3.) 84% of what number is 250?
- 4.) 39% of what number is 2007?
- 5.) What percent of 450 is 200?
- 6.) What percent of 180 is 50?

### “Sales Tax and Discounts”

- 1.) A new calculator is \$120, but with a coupon you can get it for 24% off.  
How much money would you save?
- 2.) 96% of students at MathLand High School come to school each day.  
If there are 1250 students at the school, how many would you expect to see daily?
- 3.) A laptop normally priced at \$1400 is on sale for 12% off.  
How much money would you save if you bought the laptop?
- 4.) A new NFL jersey is priced for \$149.99. When you order it online, you must pay a 5% shipping fee.  
How much money would you need in order to buy the jersey online?
- 5.) You purchase a new sofa at Sheely's for \$750. They charge you 6.5% sales tax. How much money do you need to buy the sofa?
- 6.) You want to buy an iPod for \$299. It has a 14% discount, then you must pay 5.5% sales tax.  
How much money do you need to buy the iPod?