

# Mathematics Summer Review Packet

(Optional)

For ALL Students Entering 8th Grade

Fall 2024



Medford Public Schools Department  
of Mathematics

Student Name: \_\_\_\_\_

**SHOW ALL YOUR WORK. USE A SEPARATE SHEET IF NEEDED.**

If you are struggling with any topic, look at page 8 for links to videos that may assist.

**Week 1:**

Integer Operations

1.  $-5 + 7 =$

2.  $3 + (-5) =$

3.  $(-6) + (-7) =$

4.  $(-5)(-7) =$

5.  $(-4)(2) =$

6.  $(-8)(-2) =$

7.  $8 - (-3) =$

8.  $(-4) - 6 =$

9.  $3 + (-9) =$

Multi-step Equations

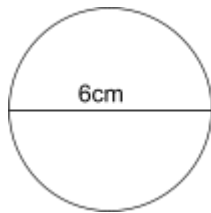
1)  $-2x = 8$

2)  $5x + 1 = 11$

**Week 2:**

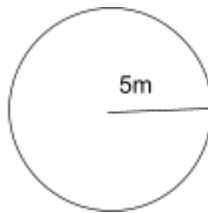
Circles

1. Identify the diameter and radius of each circle.



Radius:

Diameter:



Radius:

Diameter:

Integer Operations

1)  $3 + (-4) =$

2)  $-3 + (-3) =$

3)  $-10 + (-2) =$

4)  $(-1)(-5) =$

5)  $(-1)(5) =$

6)  $6 - (-8) =$

## Week 3:

### Integer Operations

1)  $-8 + 5 =$

2)  $2 + (-8) =$

3)  $-4 + (-5) =$

4)  $(-3)(-2) =$

5)  $(-5)(-6) =$

6)  $(-5)(-2) =$

7)  $-6 - (-4) =$

8)  $-7 - (-2) =$

9)  $6 + (-8) =$

### Distribute

1)  $4(x + 3) =$

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2)  $3(y + 4) =$

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### Two Step Equations

1)  $3x + 4 = 16$

2)  $-3x - 1 = 17$

3)  $5 - x = -2$

4)  $6x - 9 = 9$

## Week 4:

### Proportional Relationships

1. Complete the table to complete the proportional relationship.

<b>x</b>	0	1	2	3		5
<b>y</b>	0	5			20	

2. The equation  $y=kx$  represents proportional relationships.  
What is the equation for the relationship in question #1?

### Percents

1. Write the following percentages as decimals.

A.  $60\% =$  \_\_\_\_\_

B.  $35\% =$  \_\_\_\_\_

C.  $5\% =$  \_\_\_\_\_

2. Identify if the following situations are percent **increases** or **decreases**.

A. tax: \_\_\_\_\_

B. tip: \_\_\_\_\_

C. discount: \_\_\_\_\_

D. commission: \_\_\_\_\_

E. sale: \_\_\_\_\_

F. mark up: \_\_\_\_\_

3. You go to a restaurant and spend \$20 on your meal. The tax is 5%, and you leave a 20% tip. Calculate the tax, tip, and total.

Tax (5%): \_\_\_\_\_

Tip (20%): \_\_\_\_\_

Total: \_\_\_\_\_

## Week 5:

### Integer Operations

1)  $3 + (-2) =$

2)  $-1 + (-3) =$

3)  $-2 + (-4) =$

4)  $(6)(-2) =$

5)  $(-10)(-4) =$

6)  $(5)(-9) =$

7)  $4 - (-4) =$

8)  $(-3) - 9 =$

9)  $3 + (-1) =$

### Decimal Operations

1)  $54.3 + 26.98 =$

2)  $65.9 - 3.4 =$

3)  $2.3 \cdot 4.5 =$

4)  $3.6(4.5) =$

## Week 6:

### Fraction Operations

1.  $\frac{2}{3} + \frac{3}{4} =$

2.  $\frac{5}{6} - \frac{1}{3} =$

3.  $\frac{1}{4} \left(\frac{3}{5}\right) =$

4.  $\frac{1}{8} \div \frac{2}{3} =$

5. Convert  $\frac{3}{5}$  to a decimal.

## Week 7:

### Proportional Relationships

1. What are the **two** characteristics of a proportional relationship on a graph?

- \_\_\_\_\_
- \_\_\_\_\_

2. Does this table represent a proportional relationship? Why or why not?

x	0	1	3	4	5
y	1	2	6	7	9

## Week 8

### Fraction Operations

1.  $\frac{1}{3} + \frac{3}{7} =$

2.  $\frac{5}{8} - \frac{1}{5} =$

3.  $\frac{2}{5} \left(\frac{4}{9}\right) =$

4.  $\frac{2}{5} \div \frac{1}{4} =$

5. Convert  $\frac{7}{9}$  to a decimal.

## Week 9:

### Integer Operations

$$1) -5 + (-3) =$$

$$2) -4 + (-4) =$$

$$3) (-8) + (-9) =$$

$$4) (9)(-2) =$$

$$5) (-8)(-7) =$$

$$6) (3)(-8) =$$

$$7) 5 - (-9) =$$

$$8) (-2) - 7 =$$

$$9) 6 + (-3) =$$

### Two Step Equations

$$1) 8 = 3a - 4$$

$$2) 6y - 5 = 12$$









$$3) \frac{m}{5} + 1 = 6$$

$$4) 17 - x = 4$$

$$5) 4p - 3 = 17$$

$$6) 9c + 1 = 10$$

If you are struggling with a specific topic, scan the corresponding QR code with your cell phone's camera. Each code will lead you to a video explaining the concept.

 <p>Adding &amp; Subtracting Negatives</p>	 <p>Multiplication &amp; Division of Negatives</p>	 <p>Radius &amp; Diameter</p>
 <p>Two Step Equations</p>	 <p>Distributive Property</p>	 <p>Proportional Relationships</p>
 <p>Proportional Equations</p>	 <p>Converting Percent to Decimal to Fraction</p>	 <p>Decimal Operations</p>
 <p>Calculating Tax, Tip &amp; Discounts</p>	 <p>Fraction Operations</p>	