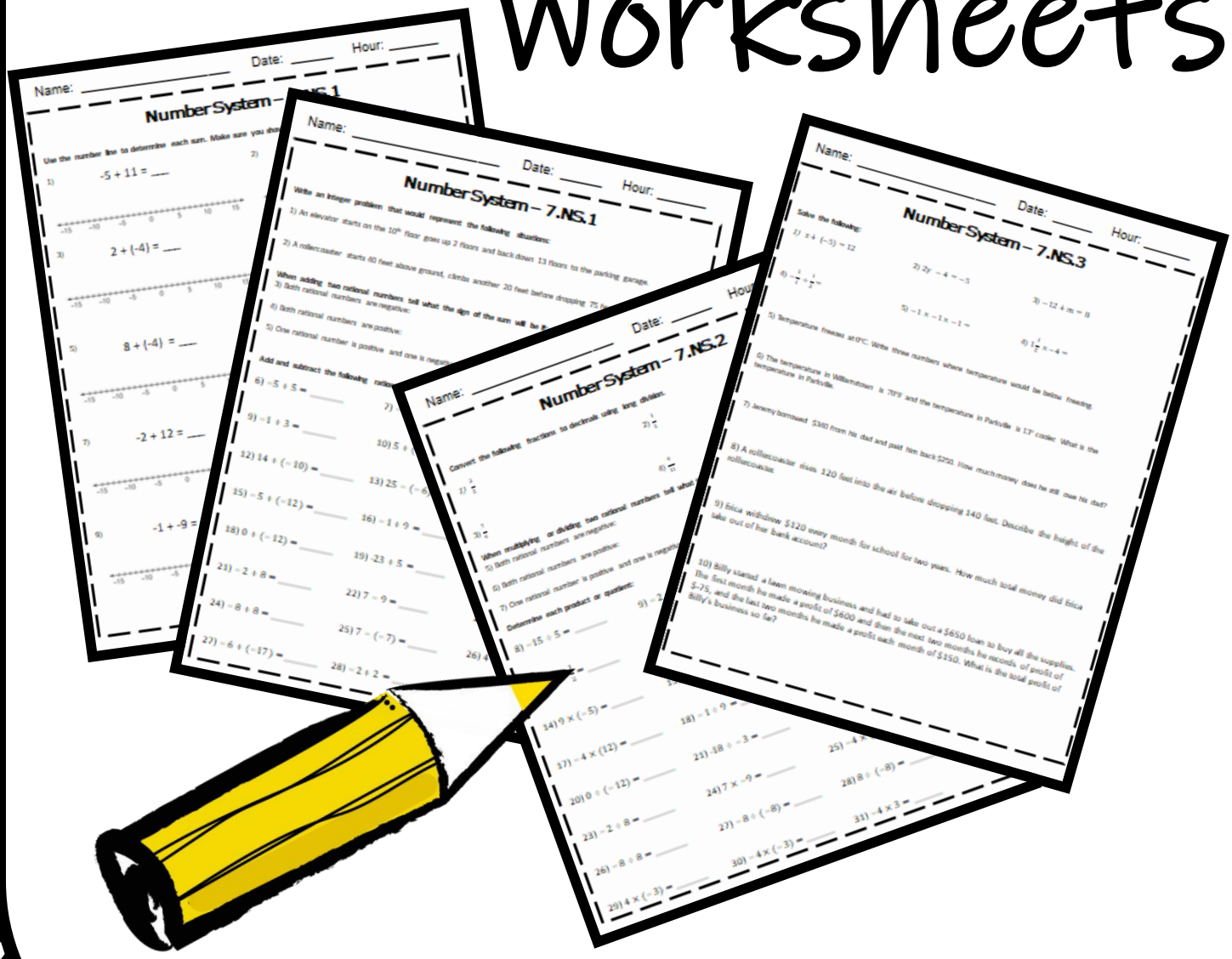
Grade 7

# Number System

## Worksheets



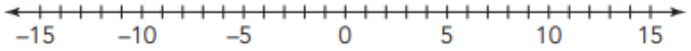

By: Math in the Midwest

Name: _____ Date: _____ Hour: _____

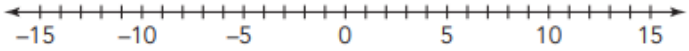
# Number System – 7.NS.1

**Use the number line to determine each sum. Make sure you show your work using the number line.**

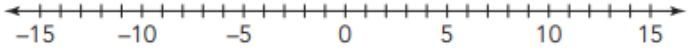
1) -5 + 11 = ___



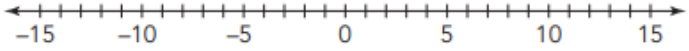

2) 7 - 15 = ___



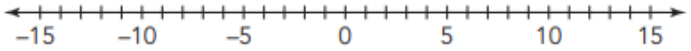

3) 2 + (-4) = ___



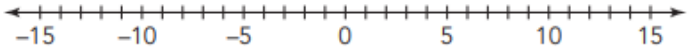

4) -11- 4 = ___



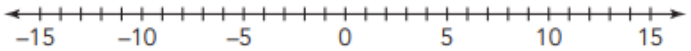

5) 8 + (-4) = ___



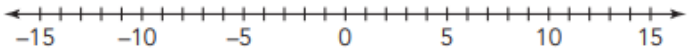

6) -5 + -9 = ___



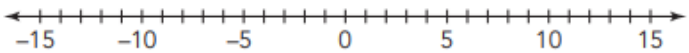

7) -2 + 12 = ___



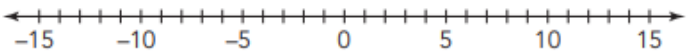

8) 10 - 15 = ___




9) -1 + -9 = ___




10) 13 - 15 = ___



Name: _____ Date: _____ Hour: _____

# Number System – 7.NS.1

**Write an integer problem that would represent the following situations:**

1) An elevator starts on the 10th floor goes up 2 floors and back down 13 floors to the parking garage.

2) A rollercoaster starts 40 feet above ground, climbs another 20 feet before dropping 75 feet.

**When adding two rational numbers tell what the sign of the sum will be if:**

3) Both rational numbers are negative:

4) Both rational numbers are positive:

5) One rational number is positive and one is negative:

**Add and subtract the following rational numbers:**

6) $-5 + 5 =$ _____

7) $-5 + 9 =$ _____

8) $7 - 10 =$ _____

9) $-1 + 3 =$ _____

10) $5 + (-6) =$ _____

11) $4 - (-8) =$ _____

12) $14 + (-10) =$ _____

13) $25 - (-6) =$ _____

14) $-8 + (-13) =$ _____

15) $-5 + (-12) =$ _____

16) $-1 + 9 =$ _____

17) $13 - 17 =$ _____

18) $0 + (-12) =$ _____

19) $-23 + 5 =$ _____

20) $-13 + 0 =$ _____

21) $-2 + 8 =$ _____

22) $7 - 9 =$ _____

23) $11 + (-19) =$ _____

24) $-8 + 8 =$ _____

25) $7 - (-7) =$ _____

26) $4 - 10 =$ _____

27) $-6 + (-17) =$ _____

28) $-2 + 2 =$ _____

29) $-9 + 15 =$ _____

Name: _____ Date: _____ Hour: _____

# Number System – 7.NS.2

**Convert the following fractions to decimals using long division.**

*1)* $\frac{2}{5}$

2) $\frac{1}{3}$

3) $\frac{7}{9}$

4) $\frac{9}{11}$

**When multiplying or dividing two rational numbers tell what the sign of the product or quotient will be if:**

5) Both rational numbers are negative:

6) Both rational numbers are positive:

7) One rational number is positive and one is negative:

**Determine each product or quotient:**

8) $-15 \div 5 =$ _____

9) $-2 \times 9 =$ _____

10) $-5 \times -10 =$ _____

11) $\frac{1}{2} \div -\frac{1}{2} =$ _____

12) $-4 \div -2 =$ _____

13) $4 \times (-8) =$ _____

14) $9 \times (-5) =$ _____

15) $25 \div (-5) =$ _____

16) $-8 \div (-\frac{1}{4}) =$ _____

17) $-4 \times (12) =$ _____

18) $-1 \div 9 =$ _____

19) $-2 \times -3 =$ _____

20) $0 \div (-12) =$ _____

21) $-18 \div -3 =$ _____

22) $-13 \div 2 =$ _____

23) $-2 \div 8 =$ _____

24) $7 \times -9 =$ _____

25) $-4 \times (-1) =$ _____

26) $-8 \div 8 =$ _____

27) $-8 \div (-8) =$ _____

28) $8 \div (-8) =$ _____

29) $4 \times (-3) =$ _____

30) $-4 \times (-3) =$ _____

31) $-4 \times 3 =$ _____

Name: _____ Date: _____ Hour: _____

# Number System – 7.NS.3

**Solve the following:**

*1)* $x + (-5) = 12$

2) $2y - 4 = -5$

3) $-12 + m = 8$

4) $-\frac{3}{4} \div \frac{1}{2} =$

5) $-1 \times -1 \times -1 =$

4) $1\frac{4}{5} \times -4 =$

5) Temperature freezes at $0℃$. Write three numbers where temperature would be below freezing.

6) The temperature in Williamstown is $78°\mathrm{F}$ and the temperature in Parkville is $13°$ cooler. What is the temperature in Parkville.

7) Jeremy borrowed $340 from his dad and paid him back $250. How much money does he still owe his dad?

8) A rollercoaster rises 120 feet into the air before dropping 140 feet. Describe the height of the rollercoaster.

9) Erica withdrew $120 every month for school for two years. How much total money did Erica take out of her bank account?

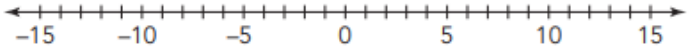
10) Billy started a lawn mowing business and had to take out a $650 loan to buy all the supplies. The first month he made a profit of $600 and then the next two months he records of profit of $-75, and the last two months he made a profit each month of $150. What is the total profit of Billy's business so far?

Name: _____ Date: _____ Hour: _____

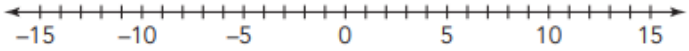
# Number System – 7.NS.1

**Use the number line to determine each sum. Make sure you show your work using the number line.**

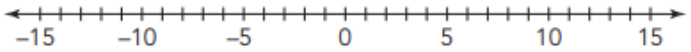
1) -5 + 11 = **6**



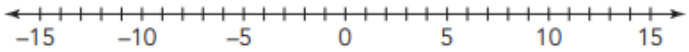

2) 7 - 15 = **-8**



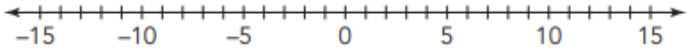

3) 2 + (-4) = **-2**



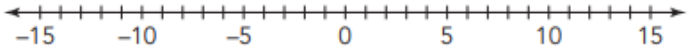

4) -11- 4 = **-15**



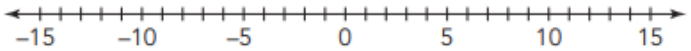

5) 8 + (-4) = **4**



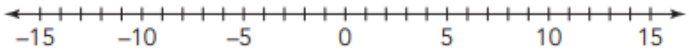

6) -5 + -9 = **-14**



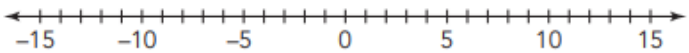

7) -2 + 12 = **10**



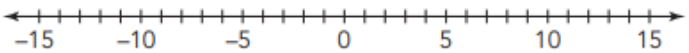

8) 10 - 15 = **-5**




9) -1 + -9 = **-10**




10) 13 - 15 = **-2**



Name: _____ Date: _____ Hour: _____

# Number System – 7.NS.1

**Write an integer problem that would represent the following situations:**

1) An elevator starts on the 10th floor goes up 2 floors and back down 13 floors to the parking garage.

**10 + 2 – 13 = 1**

2) A rollercoaster starts 40 feet above ground, climbs another 20 feet before dropping 75 feet.

**40 + 20 – 75 = -15**

**When adding two rational numbers tell what the sign of the sum will be if:**

3) Both rational numbers are negative:

**Negative**

4) Both rational numbers are positive:

**Positive**

5) One rational number is positive and one is negative:

**Whichever number has a larger absolute value**

**Add and subtract the following rational numbers:**

6) $-5 + 5 =$ **0**

7) $-5 + 9 =$ **4**

8) $7 - 10 =$ **-3**

9) $-1 + 3 =$ **2**

10) $5 + (-6) =$ **-1**

11) $4 - (-8) =$ **12**

12) $14 + (-10) =$ **4**

13) $25 - (-6) =$ **31**

14) $-8 + (-13) =$ **-21**

15) $-5 + (-12) =$ **-17**

16) $-1 + 9 =$ **8**

17) $13 - 17 =$ **-4**

18) $0 + (-12) =$ **-12**

19) $-23 + 5 =$ **-18**

20) $-13 + 0 =$ **-13**

21) $-2 + 8 =$ **6**

22) $7 - 9 =$ **-2**

23) $11 + (-19) =$ **-8**

24) $-8 + 8 =$ **0**

25) $7 - (-7) =$ **14**

26) $4 - 10 =$ **-6**

27) $-6 + (-17) =$ **-23**

28) $-2 + 2 =$ **0**

29) $-9 + 15 =$ **6**

Name: _____ Date: _____ Hour: _____

# Number System – 7.NS.2

**Convert the following fractions to decimals using long division.**

1) $\frac{2}{5}$ **0.4**

2) $\frac{1}{3}$ **0.333…**

3) $\frac{7}{9}$ **0.777…**

4) $\frac{9}{11}$ **0.8181…**

**When multiplying or dividing two rational numbers tell what the sign of the product or quotient will be if:**

5) Both rational numbers are negative:

**Positive**

6) Both rational numbers are positive:

**Positive**

7) One rational number is positive and one is negative:

**Negative**

**Determine each product or quotient:**

8) $-15 \div 5 =$ **-3**

9) $-2 \times 9 =$ **-18**

10) $-5 \times -10 =$ **50**

11) $\frac{1}{2} \div -\frac{1}{2} =$ **-1**

12) $-4 \div -2 =$ **2**

13) $4 \times (-8) =$ **-32**

14) $9 \times (-5) =$ **-45**

15) $25 \div (-5) =$ **-5**

16) $-8 \div (-\frac{1}{4}) =$ **32**

17) $-4 \times (12) =$ **-48**

18) $-1 \div 9 =$ **$-\frac{1}{9}$ or $-.11\ldots$**

19) $-2 \times -3 =$ **6**

20) $0 \div (-12) =$ **0**

21) $-18 \div -3 =$ **6**

22) $-13 \div 2 =$ **-6.5**

23) $-2 \div 8 =$ **$-\frac{1}{4}$ or $-0.25$**

24) $7 \times -9 =$ **-63**

25) $-4 \times (-1) =$ **4**

26) $-8 \div 8 =$ **-1**

27) $-8 \div (-8) =$ **1**

28) $8 \div (-8) =$ **-1**

29) $4 \times (-3) =$ **-12**

30) $-4 \times (-3) =$ **12**

31) $-4 \times 3 =$ **-12**

Name: _____ Date: _____ Hour: _____

# Number System – 7.NS.3

**Solve the following:**

1) $x + (-5) = 12$

**x = 17**

2) $2y - 4 = -5$

$x = -\frac{1}{2}$

3) $-12 + m = 8$

**m = 20**

4) $-\frac{3}{4} \div \frac{1}{2} =$

**-1.5**

5) $-1 \times -1 \times -1 =$

**-1**

4) $1\frac{4}{5} \times -4 =$

**-7.2**

5) Temperature freezes at $0°C$. Write three numbers where temperature would be below freezing.

**Answers will vary**

6) The temperature in Williamstown is $78°F$ and the temperature in Parkville is $13°$ cooler. What is the temperature in Parkville.

**65°F**

7) Jeremy borrowed $340 from his dad and paid him back $250. How much money does he still owe his dad?

**$90**

8) A rollercoaster rises 120 feet into the air before dropping 140 feet. Describe the height of the rollercoaster.

**20 feet below ground**

9) Erica withdrew $120 every month for school for two years. How much total money did Erica take out of her bank account?

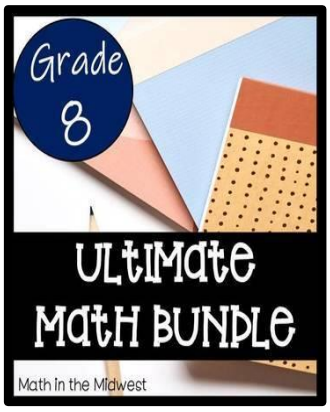
**$2,880**

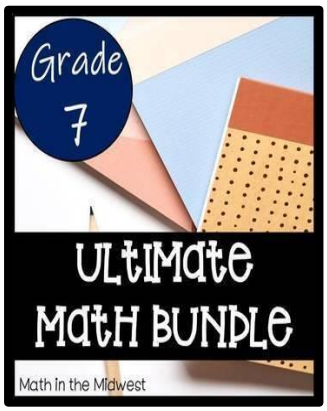
10) Billy started a lawn mowing business and had to take out a $650 loan to buy all the supplies. The first month he made a profit of $600 and then the next two months he records of profit of $-75, and the last two months he made a profit each month of $150. What is the total profit of Billy's business so far?

**$-650 + $600 +$-150 +$300 = $100 profit**

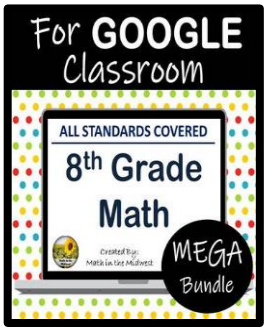
# Check out my other products!

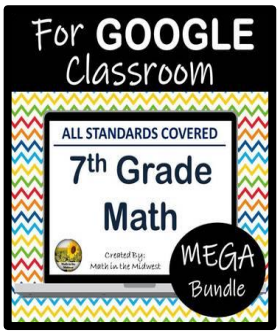
## Ultimate Bundles:

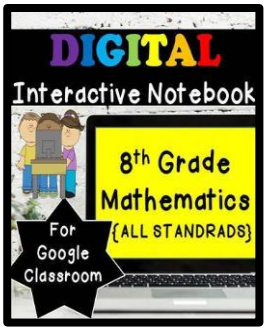


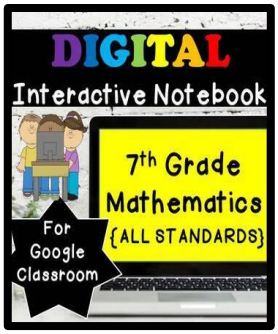




## Digital Bundles:

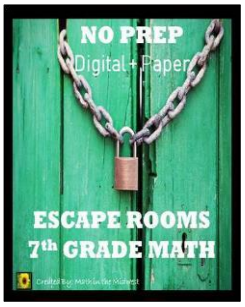


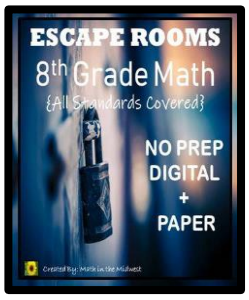



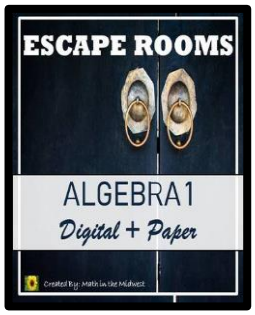

## Escape Rooms:

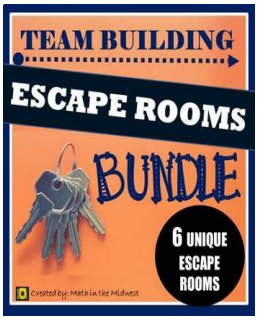




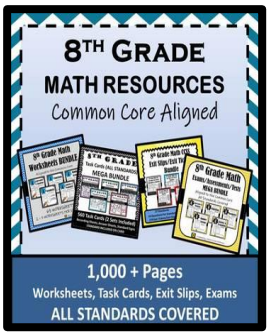


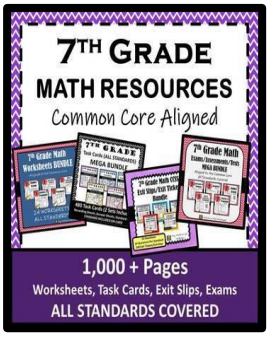





## PDF Bundles:





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