Background Knowledge

Fraction Number Line Mysteries

Mystery 1:

1. I am a number on a number line that starts at 10 and ends at 60.

2. The number line between 10 and 60 is cut into 5 equal pieces.

3. I am smaller than 40.

4. I am larger than 20.

5. I am a multiple of 5.

6. Which number am I?

Answer: 30

Mystery 2:

1. I am a number on a number line that starts at 0 and ends at 25.

2. The number line between 0 and 25 is cut into 5 equal pieces.

3. I am smaller than 20.

4. I am a multiple of 5.

5. My name ends in "teen".

6. Which number am I?

Answer: 15

Mystery 3: (This mystery is the one used as an example in the Scratch activity *Fraction Number Line Mystery.)*

1. I am a number on a number line that starts at 0 and ends at 1.

2. The number line is cut into 4 equal pieces.

3. I am larger than 1/2 or 2/4.

4. I am smaller than 4/4.

5. My denominator is a 4.

6. Which number am I?

Answer: 3/4

Mystery 4:

1. I am a number on a number line that starts at 0 and ends at 1.

2. The number line is cut into 6 equal pieces.

3. I am smaller than 1/2.

4. I am larger than 1/6.

5. I have a 6 in my denominator.

6. Which number am I?

Answer: 2/6

Mystery 5:

1. I am a number on a number line that starts at 0 and ends at 1.

2. The number line is cut into 8 equal pieces.

3. I am smaller than 6/8.

4. I am larger than 1/2.

5. I have a 5 in my numerator.

6. Which number am I?

Answer: 5/8

Mystery 6:

1. I am a number on a number line that starts at 0 and ends at 1.

2. The number line is cut into 10 equal pieces.

3. I am smaller than 1/2.

4. I am larger than 3/10.

5. Which number am I?

Answer: 4/10

Mystery 7:

1. I am a number on a number line between 0 and 1.

2. The number line is cut into 4 equal pieces.

3. I am the number in the middle of the number line.

4. My denominator is a 4.

5. Which number am I?

Answer: 2/4

Mystery 8:

1. I am a number on a number line between 0 and 1.

2. The number line is cut into 8 equal pieces.

3. I am smaller than 1/2.

4. I am larger than 1/8.

5. My denominator is an 8.

6. My numerator is an odd number.

7. Which number am I?

Answer: 3/8

Mystery 9:

1. I am a number on a number line between 0 and 1.

2. The number line is cut into 8 equal pieces.

3. I am small than 1/2.

4. My numerator is an even number.

5. My denominator is 8.

6. Which number am I?

Answer: 2/8