



Small Group Math Stations: Fraction Action for All

KSDE 2014

Facilitated by: Renee' Smith and Tammy Fellers



Purpose

- Differentiation
- Enrichment
- Learning from Other Students
- Additional Time for Not Mastered Content
- Additional Practice for Not Mastered Content
- Opportunity for Teacher Table
- Meet the Needs of the Individual Student



Structure

- ▶ Independent Rotation
- ▶ System in Place - Management
- ▶ Intentional Organization
- ▶ Single Task vs. Multiple Task
- ▶ Student Accountability
- ▶ Pre-Teaching



Station Activities

- ▶ Begin with the End in Mind
- ▶ Aligned to KCCRS
- ▶ Standards for Mathematical Practice
- ▶ Demonstrate Independence
- ▶ Develop Conceptual Understanding
- ▶ Create Context and Application
- ▶ Build Fluency

Pre-Teach

- Fraction Comparison
- Elapsed Time

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Learn and Make a Difference!



Compare

$$\frac{6}{7} \quad \frac{7}{8}$$

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Comparison

- ▶ Distance to Zero
- ▶ Common Denominators
- ▶ Common Numerators
- ▶ Distance to One
- ▶ Benchmark to $\frac{1}{2}$ and to One
- ▶ Distance to $\frac{1}{2}$

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Things you should know:

- ▶ Packet not for students - Accountability sheets located in the station tub
- ▶ Manipulatives available
- ▶ Communities for students to work collaboratively

Station Rotation

Name: _____

| Task #1 | Task #2 | Task #3 | |
|----------------------|----------------------|----------------------|----------------------|
| <input type="text"/> | | | Using Unit Fractions |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | Area |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | Sets |
| <input type="text"/> | <input type="text"/> | | Comparison |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | Teacher Station |

Notes:

Stations

- ▶ Telling Time
- ▶ Elapsed Time
- ▶ Place Value 1
- ▶ Place Value 2
- ▶ Missing Numbers
- ▶ Even, Odd & Arrays
- ▶ Using Unit Fractions
- ▶ Sets
- ▶ Area
- ▶ Fraction

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Reflection & Questions

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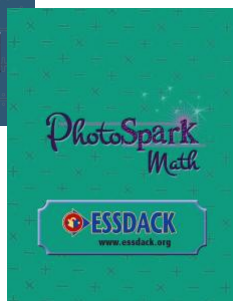
- ▶ www.facebook.com/ReneeSmithbythenumbers
 - ▶ www.facebook.com/theintentionaleducator
- Today's Blackline Masters and Presentation
- ▶ <http://essdk.me/2014KSDEMath>

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Reflection



My learning from
this morning is
like.... Because...

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Contact Us:

 **The Intentional Educator**
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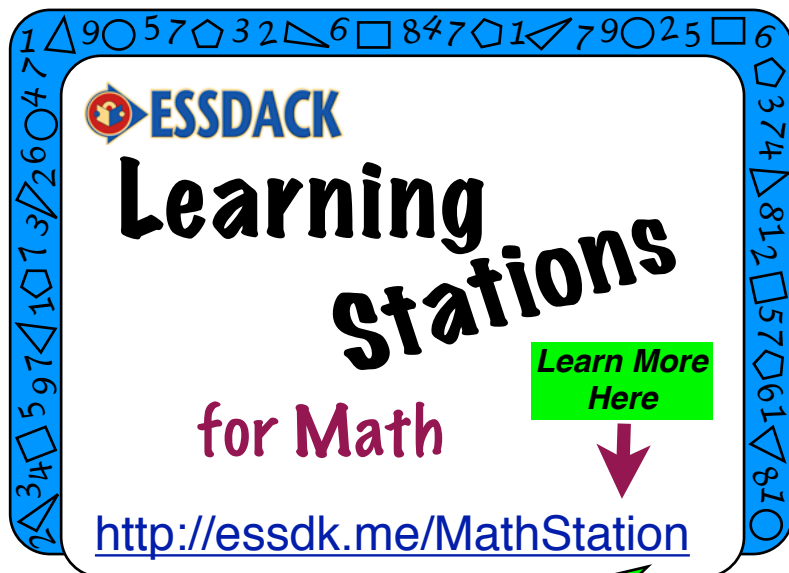
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Here



Use the code:
KSDE2014

until Nov. 22 and receive free shipping
 on all orders \$40 and over.

| Flip Flop Facts | Grades |
|----------------------------------|--------|
| ■ Sums of Five & Ten | K - 1 |
| ★ Whole Number Add & Subtract | K - 2 |
| ★ Whole Number Multiply & Divide | 3 - 5 |
| ■ Integers Addition | 7 - 8 |
| ■ Integers Subtraction | 7 - 8 |
| ■ Integers Multiply & Divide | 7 - 8 |

| Tick Tock | Grades |
|----------------|--------|
| ★ Telling Time | 1 - 2 |
| ⦿ Elapsed Time | 2 - 3 |

| Geometric Gems | Grades |
|---------------------|--------|
| ■ Shapes & Position | K - 1 |

| Measurement Mix | Grades |
|--------------------|--------|
| ⦿ Area & Perimeter | 3 - 4 |

KSDE

Small Group Math Stations: Fraction Action for All

Today's K - 2 Activities

Today's 3 - 6 Activities

| Fraction Action | Grades |
|------------------------|--------|
| ⦿ Area | 3 - 6 |
| ■ Sets | 3 - 6 |
| ■ Comparison | 3 - 6 |
| ⦿ Using Unit Fractions | 3 - 6 |

| Nifty Numbers | Grades |
|--------------------------|--------|
| ⦿ Comparing Less than 20 | K - 1 |
| ■ Missing Numbers | K - 1 |
| ⦿ Even or Odd and Arrays | 2 |
| ■ Relational Thinking 1 | K - 4 |
| ■ Relational Thinking 2 | 3 - 6 |
| ⦿ Place Value 1 | K - 2 |
| ⦿ Place Value 2 | 2 - 4 |
| ⦿ Place Value 3 | 4 - 6 |

| PhotoSparks \$12.95 | Grades |
|---------------------|--------|
| Math 1 | K - 12 |
| Math 2 | K - 12 |

Each deck comes with a task sheet
 that provides direction for use,
 extensions, answers and possible
 student accountability ideas.

★ More than 60 cards (4.25 x 3.66) \$10

⦿ 24 Cards (5.5 x 4.25) \$8

■ 36 Cards (4.25 x 3.66) \$8

Station Rotation

Name:

Task #1

Task #2

Task #3

Using Unit Fractions

Area

Sets

Comparison

Teacher Station

Notes:

Using Unit Fractions
Task #1

Name: _____

Record answer in the chart below.

| | |
|-----|-----|
| #1 | #5 |
| #7 | #8 |
| #9 | #10 |
| #14 | #17 |

Area
Task #1

Name: _____

Record answer in the chart below using pattern blocks.

| | |
|----|-----|
| #1 | #3 |
| #5 | #7 |
| #9 | #10 |

Area
Task #2

Name: _____

Record answer in the chart below using pattern blocks.

| | |
|-----|-----|
| #11 | #17 |
| #21 | #22 |

Area
Task #3

Name: _____

Record answer in the chart below using pattern blocks.

| | |
|-----|-----|
| #12 | #19 |
| #20 | #23 |

Sets
Task #1

Name: _____

Record answer in the chart below. Draw a picture to justify your answer.

| | |
|----|-----|
| #1 | #2 |
| #5 | #7 |
| #8 | #11 |

Sets
Task #2

Name: _____

Record answer in the chart below. Draw a picture to justify your answer.

| | |
|-----|-----|
| #14 | #16 |
| #18 | #19 |
| #20 | #21 |

Sets
Task #3

Name: _____

Record answer in the chart below.

| | |
|-----|-----|
| #25 | #26 |
| #27 | #28 |
| #29 | #30 |

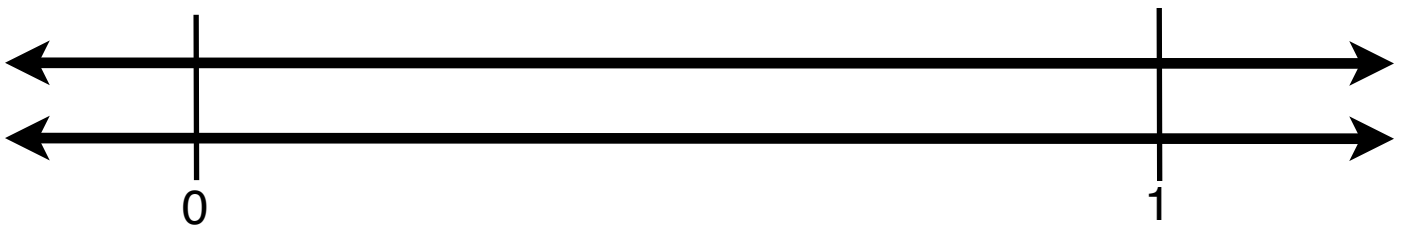
#35 - Read the question carefully.

Comparison
Task #1

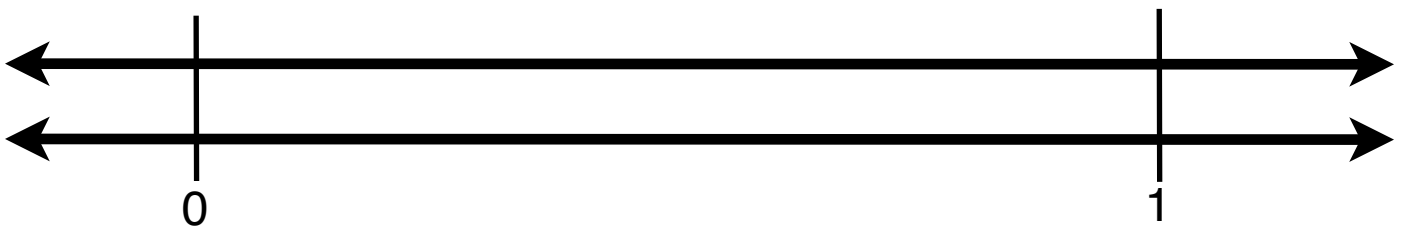
Name: _____

Record answer in the spaces below. Justify your answer using unit fractions. The number line and rectangles are available to assist with your picture if you choose to use them.

#2

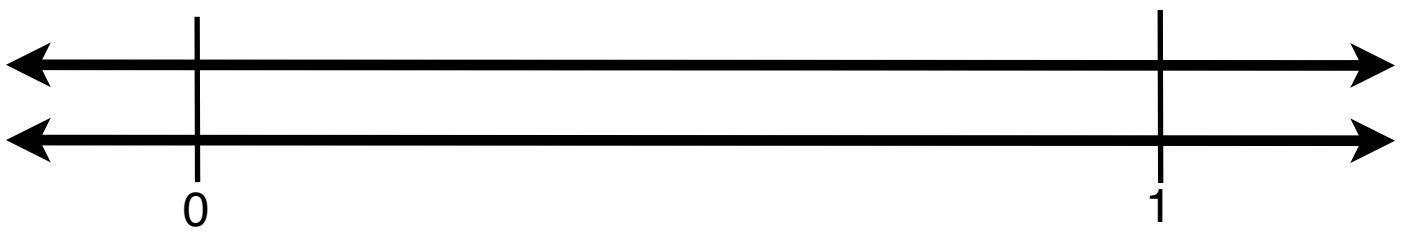


#12

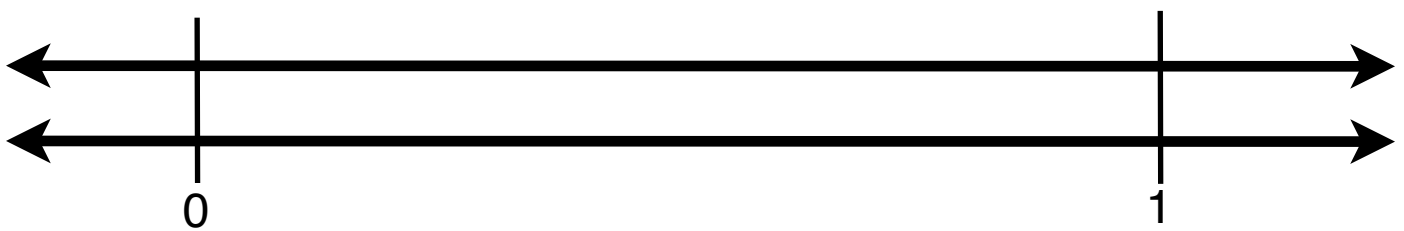


Comparison - Task #1
Continued

#26



#28

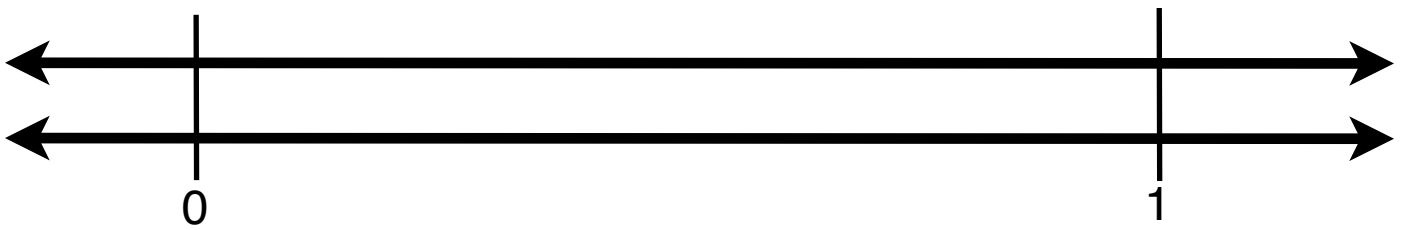


Comparison
Task #2

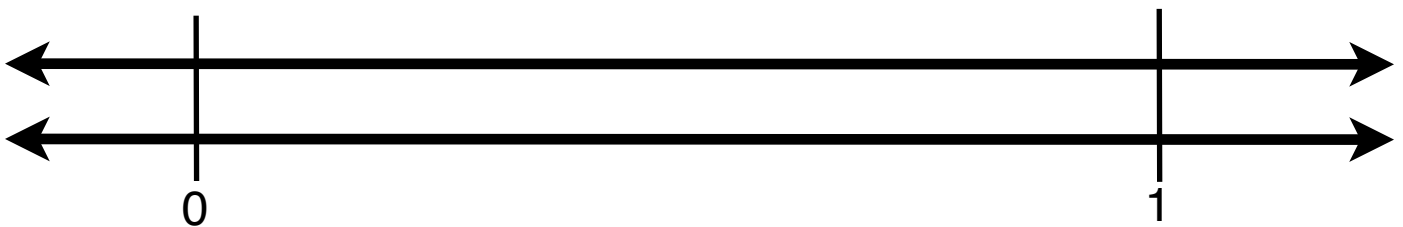
Name: _____

Record answer in the space below. Justify your answer using unit fractions. The number line and rectangles are available to assist with your picture if you choose to use them.

#15

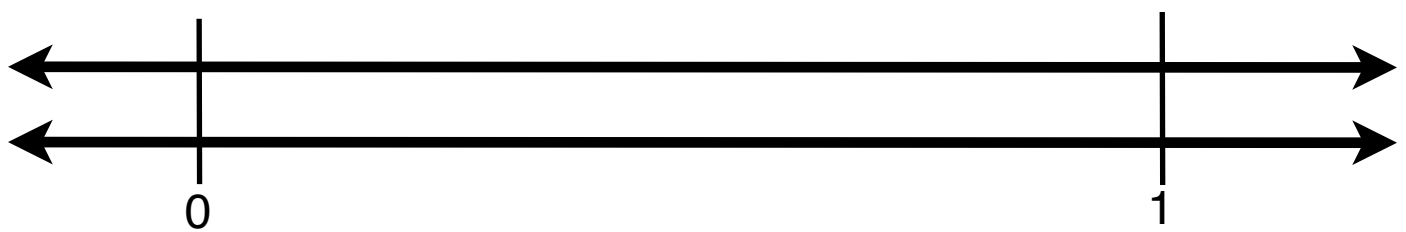


#23

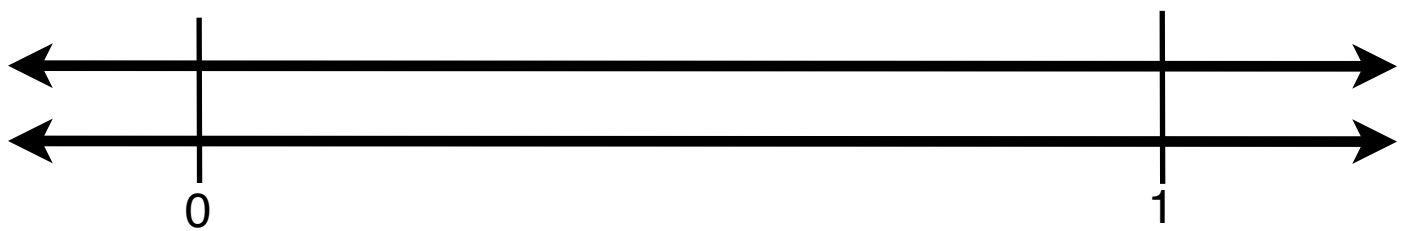


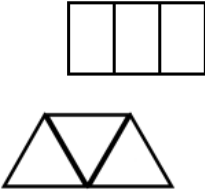
Comparison - Task #2
Continued

#29



#35



| Using Unit Fractions - Answers | | | |
|--------------------------------------|--------------------------------------|---|----------------------|
| #1 $\frac{1}{3}$ | #5 $\frac{1}{2}$ | #7 $\frac{1}{6}$ | #8 $\frac{5}{8}$ |
| #9 $\frac{1}{2}$ or $\frac{4}{8}$ | #10 $\frac{3}{6}$ & $\frac{1}{2}$ | #14  | #17 $\frac{3}{4}$ |

| Area - Answers | | | |
|----------------------------|--------------------|--------------------|-------------------|
| #1 - 1 triangle | #3 - 2 triangles | #5 - 3 wholes | #7 - 6 wholes |
| #9 - $1\frac{1}{2}$ wholes | #10 - 3 wholes | #11 - 3 triangles | #12 - 9 triangles |
| #17 - 5 triangles | #19 - 4 triangles | #20 - 11 triangles | #21 - 6 triangles |
| #22 - 4 triangles | #23 - 16 triangles | | |

| Sets - Answers | | | | |
|----------------|----------|----------|----------|----------|
| #1 - 4 | #2 - 12 | #5 - 20 | #7 - 5 | #8 - 9 |
| #11 - 21 | #14 - 40 | #16 - 28 | #18 - 12 | #19 - 44 |
| #20 - 18 | #21 - 35 | #25 - 3 | #26 - 3 | #27 - 6 |
| #28 - 6 | #29 - 6 | #30 - 8 | #35 - 12 | |

| Comparison - Answers | | | |
|----------------------|----------------------|-----------------------|-----------------------|
| #2 $\frac{5}{7}$ | #12 $\frac{8}{9}$ | #15 $\frac{9}{16}$ | #23 $\frac{4}{10}$ |
| #26 $\frac{1}{3}$ | #28 $\frac{3}{8}$ | #29 $\frac{4}{10}$ | #35 < |

Station Rotation

Name:

Task #1

Task #2

Telling Time

Grades: 1 - 2

Elapsed Time

Grades: 2 - 3

Place Value 1

Grades: K - 2

Place Value 2

Grades: 2 - 4

Missing Numbers

Grades: K - 1

Even, Odd & Arrays

Grades: 2

Teacher Station

Notes:

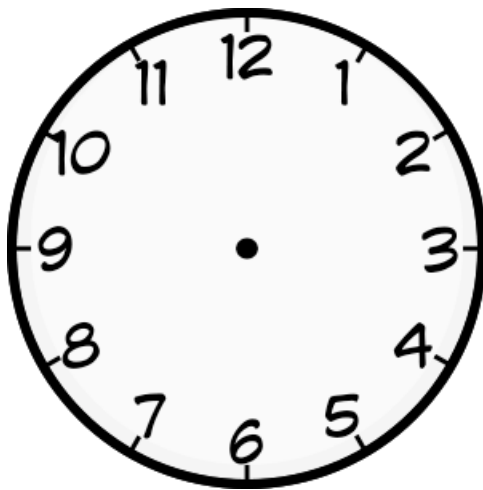
Telling Time
Task #1

Name: _____

Record answer in the chart below.

| | | |
|-----|-----|-----|
| #2 | #9 | #21 |
| #23 | #33 | #35 |

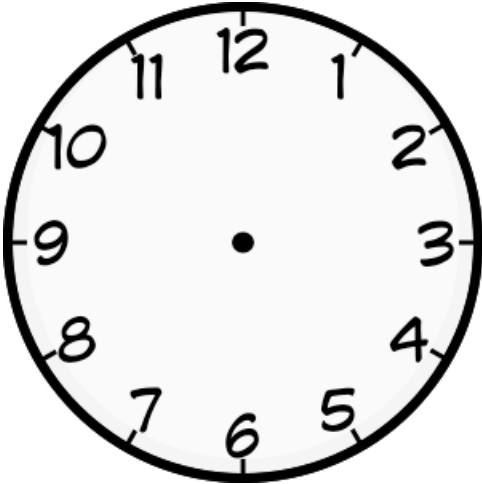
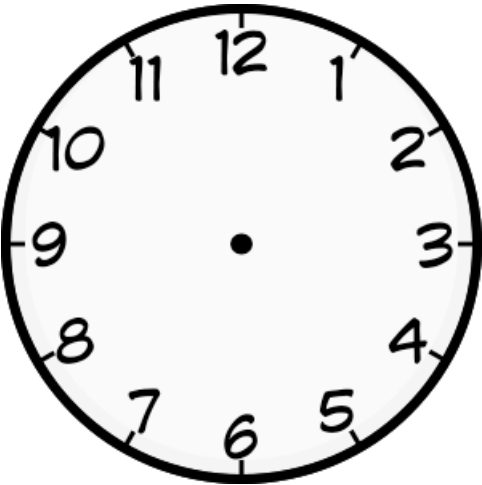
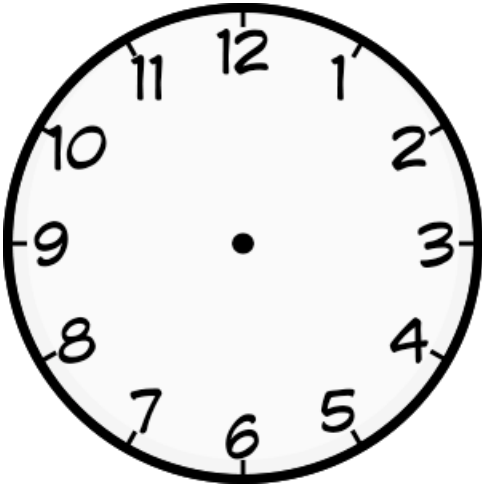
Make the clock below read 11:45.



Telling Time
Task #2

Name: _____

Record answer in the chart below.

| | |
|---|---|
| #38 | #39 |
| #43 |  |
|  | #61  |

Elapsed Time
Task #1

Name: _____

| Question # | Beginning Time | Ending Time | Elapsed Time |
|------------|----------------|-------------|--------------|
| 2 | | | |
| 6 | | | |
| 13 | | | |

#23

How long is Bill's work day? Show your thinking.

Elapsed Time
Task #2

Name: _____

#10

| Beginning Time | Hours | Minutes | Ending Time |
|-------------------|-------|---------|----------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Total Time | | | |

#20

| Beginning Time | Hours | Minutes | Ending Time |
|-------------------|-------|---------|----------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Total Time | | | |

Place Value 1
Task #1

Name: _____

Question #2

Answer:

Question #3

Answer:

Question #10

Answer:

Question #14

Answer:

Place Value 1
Task #2

Name: _____

Card #5

Answer:

Card #6

Answer

Write an addition equation and solve for the sum of card numbers 5 and 6.

Card #12

Answer:

Card #16

Answer

Write an addition equation and solve for the sum of card numbers 12 and 16.

Place Value 2

Task #1

Name: _____

Partner Name: _____

Question #: _____

Clue 1 Guess: _____

Clue 2 Guess: _____

Clue 3 Guess: _____

Clue 4 Guess: _____

Clue 5 Guess: _____

Final Answer: _____

Justification:

Question #: _____

Clue 1 Guess: _____

Clue 2 Guess: _____

Clue 3 Guess: _____

Clue 4 Guess: _____

Clue 5 Guess: _____

Final Answer: _____

Justification:

Place Value 2
Task #2

Name: _____

Question #: _____

Clue 1 Guess: _____

Clue 2 Guess: _____

Clue 3 Guess: _____

Clue 4 Guess: _____

Clue 5 Guess: _____

Final Answer: _____

Number in Expanded Form:

Number in Written Form:

Number Rounded to the Nearest Ten:

Number Rounded to the Nearest Hundred:

**Missing Number
Task #1**

Name: _____

Fill in both the given and missing numbers.

Question #4 _____ _____ _____

Question #7 _____ _____ _____

Question #9 _____ _____ _____

Question #11 _____ _____ _____

Question #13 _____ _____ _____

Justify your answer.

Question #21 _____ _____ _____

**Missing Number
Task #2**

Name: _____

Fill in both the given and missing numbers.

Question #26 _____ _____ _____

Question #28 _____ _____ _____

Question #30 _____ _____ _____

Question #31 _____ _____ _____

Justify your answer.

Question #32 _____ _____ _____

Justify your answer.

Question #34 _____ _____ _____

Justify your answer.

Even or Odd & Arrays
Task #1

Name: _____

Question #3 **Equation:** _____

Question #6 **Equation:** _____

Question #7 **Equation:** _____

Question #10 **Equation:** _____

Draw an array and write the repeated addition equation below.

Even or Odd & Arrays
Task #2

Name: _____

Question #12 **Answer:** _____ **Even or Odd**

Justification:

Question #18 **Answer:** _____ **Even or Odd**

Justification:

Question #20 **Answer:** _____ **Even or Odd**

Justification:

Question #23 **Answer:** _____ **Even or Odd**

Justification: