Operations and Algebraic Thinking

3.OA.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.

1. If 25 chairs are arranged in 5 equal rows, how many chairs are in each row? Draw an array to help solve the problem.

2. George has 27 feet of fishing line. He cut it into 3 equal pieces. How long was each piece of fishing line?

A. 4
B. 5
C. 6
D. 7

A. 9 feet
B. 10 feet
C. 8 feet
D. 12 feet

3. Which problem is NOT illustrated by the picture below?

4. Which problem is illustrated by the array?

X X X X X X X
X X X X X X X
X X X X X X X
X X X X X X X
X X X X X X X
X X X X X X X

A. 20 / 4
B. 4 x 5
C. 5 – 4
D. 4 + 4 + 4 + 4 + 4

A. 7 + 6
B. 7 / 6
C. 7 - 6
D. 7 x 6

Number and Operations Fractions

3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.

1. Fill in the missing fraction on the number line.

2. Fill in the missing fractions on the number line.

3. Fill in the missing fractions on the number line.

4. Fill in the missing fraction on the number line.

Operations and Algebraic Thinking

3.OA.5. Apply properties of operations as strategies to multiply and divide.

1. What is the turn around fact (communicative property) of:

5 x 2

Answer:_____

2. 7 x 3 = ?

A. 10 x 7
B. 3 x 7
C. 3 x 10
D. 3 x 14

3. 2 x 5 = ?

A. 7 x 5
B. 10 x 2
C. 5 x 2
D. 2 x 7

4. True or False:

21 / 3 = 3 /21

True / False

(Circle one)

Numbers and Operations Base 10

3.NBT.3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 using strategies based on place value and properties of operations.

1. 50 x 4 =

Answer:_____

2. 80 x 3 =

Answer:_____

3. 40 x 5 =

Answer:_____

4. 10 x 9 =

Answer:_____

Measurement and Data

3.MD.8 Solve real world and mathematical problems involving perimeters of polygons.

1. Julie is putting a fence around her garden. Her garden is 4 meters wide and 8 meters long. How much fencing does she need to buy?

Answer:_____

2. What is the perimeter of the shape below in cm?

Answer:_____

3. Find the perimeter.

Answer:_____

4. A farmer needs to build a rectangular pen for his pigs. The perimeter must be 20 yards. Draw and label the sides of his pen.

Operations and Algebraic Thinking

3.OA.9 Identify arithmetic patterns and explain them using properties of operations.

1. What is the missing number in this sequence?

926, 916, 906, _____, 886, 876

A. 891
B. 896
C. 894
D. 901

2. What is the rule for this sequence?

640, 630, 620, 610, 600

A. - 20
B. + 20
C. - 10
D. + 10

3. What is the missing number in this sequence?

688, _____, 488, 388, 288

A. 578
B. 638
C. 598
D. 588

4. What is the missing number in this sequence?

120, 140, _____, 180, 200

A. 150
B. 160
C. 165
D. 170

Measurement and Data

3.MD.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g. by representing the problem on a number line diagram.

1. School starts at 9:00 and ends at 3:30. Use the number line to find out how long school lasted.

Answer:_____

2. A football game began at 7:15 and ended at 9:50. Use the number line to find out how long the game lasted.

Answer:_____

3. A movie began at 4:10 and ended 7:35. Use the number line to find out how long the movie lasted.

Answer:_____

4. Dan went to the beach from 12:24 to 6:18. Use the number line to find out how long he was at the beach.

Answer:_____

Operations and Algebraic Thinking

3.OA.6. Understand division as an unknown-factor problem.

1. 32 ÷ 8 is equal to:

A. 8 x _____ = 32
B. 32 x 8 = _____
C. 32 – 8 = _____
D. 32 x 8 = _____

2. What is not a fact family that belongs with 48 ÷ 6?

A. 6 x 8 = 48
B. 48 ÷ 8 = 6
C. 6 ÷ 48 = 8
D. 8 x 6 = 48

3. Solve:

Answer:_____

4. Solve:

Answer:_____

Measurement and Data

3.MD.7. Relate area to the operations of multiplication and addition.

1. Use the side lengths of the rectangle to create a multiplication problem.

Answer:_____

2. Shade in the area of a rectangle that shows the multiplication problem 2 x 7.

3. What problem is NOT illustrated in the picture below?

A. 5 + 5 + 5
B. 3 + 3 + 3 + 3 + 3
C. 5 + 3
D. 5 x 3

4. Mia needs to buy carpet to cover the floor of her bedroom. The length of her room is 8 feet and the width of her room is 9 feet. How many feet of carpet does she need to buy?

Answer:_____

Number and Operations Fractions

3.NF.1. Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts.

1. The rectangle below is split into equal parts. How big is each part of the rectangle?

A. 1/2
B. 4/1
C. 1/4
D. 4/4

2. The rectangle below is split into equal parts. How big is each part of the rectangle?

A. 1/7
B. 1/8
C. 1/5
D. 8/1

3. What fraction of the circle below is shaded?

A. 1/4
B. 2/4
C. 3/4
D. 4/4

4. What fraction of the circle below is shaded?

A. 1/8
B. 5/8
C. 8/5
D. 3/8

Geometry

3.G.1 Understand that shapes in different categories may share attributes and that the shared attributes can define a larger category.

1. A rectangle is a type of _____

A. Triangle
B. Quadrilateral
C. Trapezoid
D. Pentagon

2. The shape below is a quadrilateral with four congruent sides and four right angles. What is the name of the shape?

Answer:_____

3. A hexagon has how many angles?

A. 4
B. 5
C. 6
D. 7

4. Which shape is not a quadrilateral?

Numbers and Operations Base 10

3.NBT.1. Use place value understanding to round whole numbers to the nearest 10 or 100.

1. Round to the nearest 10.

654

A. 640
B. 653
C. 650
D. 660

2. Round to the nearest 100.

145

A. 0
B. 100
C. 200
D. 140

3. Round to the nearest 10.

646

A. 600
B. 640
C. 650
D. 640

4. Round to the nearest 100.

273

A. 270
B. 300
C. 200
D. 280

Geometry

3.G.2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.

1. The rectangle below is split into equal parts. How big is each part of the rectangle?

A. 1/4
B. 1/2
C. 1/5
D. 1/6

2. The rectangle below is split into equal parts. How big is each part of the rectangle?

A. 1/2
B. 4/1
C. 1/4
D. 1/5

3. The rectangle below is split into equal parts. How big is each part of the rectangle?

A. 1/6
B. 1/3
C. 2/3
D. 1/5

4. Below is a rectangle. Split it so that there are 5 equal parts.

Number and Operations Fractions

3.NF.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

1. Circle the picture below that shows the same fraction as the shaded area above.

2. Circle the picture below that shows the same fraction as the shaded area above.

3. Compare the two fractions by using >, <, or =.

$\frac{2}{5} \square \frac{2}{6}$

4. Name two other fractions that are equivalent to ½

Measurement and Data

3.MD.3 Draw a scaled picture graph and scaled bar graph to represent a data set with several categories. Solve one- and two- step "how many more" and "how many less" problems using information in graphs.

1. How many cupcakes did Jeremy eat?

A. 1
B. 2
C. 4
D. 5

2. How many more kids play football than baseball?

A. 4
B. 8
B. 3
C. 2

3. Draw a bar graph that matches the data.

Jeremy	8
Patrice	6
Pete	4
Zak	10

4. Draw a picture graph that matches the data.

Lenny	4
Patrice	1
Pete	10
Tim	3

Operations and Algebraic Thinking

3.OA.8. Solve two-step word problems using the four operations

1. Megan brought 8 of her books to school to read. Matt brought 5 books to read.

What number sentence can be used to find the total number of books they brought to read?

A. 8 – 5 = ?
B. 7 + 8 = 5
C. 8 + 5 = ?
D. 5 + ? = 8

2. The grocery store received a shipment of 10 boxes of fruit. At the end of the day, the store had 4 boxes of fruit left.

What number sentence can be used to find the number of boxes that were sold?

A. 4 + 10 = ?
B. 4 = ? + 10
C. 10 + 4 = ?
D. 10 - ? = 4

3. Charlie has 18 apples he wants to share them with himself and 2 friends. How many apples does each person get?

What number sentence can be used to find the total number of apples each child gets?

A. 18 ÷ 3
B. 18 – 3
C. 18 x 3
D. 3 + 18

4. There are 4 rows of desks in the classroom. There are 6 desks in each row. How many desks are there in the room all together?

What number sentence can be used to find the total number of desks there are total?

A. 4 x 6
B. 4 + 6
C. 6 – 4
D. 6 ÷ 4

Operations and Algebraic Thinking

3.OA.7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division.

1. Solve the following problem:

5 x 8 =

Answer:_____

2. Solve the following problem:

3 x _____ = 24

Answer:_____

3. Solve the following problem:

72 ÷ 8 =

Answer:_____

4. Solve the following problem:

21 ÷ _____ = 7

Answer:_____

Measurement and Data

3.MD.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch.

1. What measurement is shown on the ruler below?

Answer:_____

2. What measurement is shown on the ruler below?

Answer:_____

3. What measurement is shown on the ruler below?

Answer:_____

4. What measure is shown on the ruler below?

Answer:_____

Measurement and Data

3.MD.5. Recognize area as an attribute of plane figures and understand concepts of area measurement.

1. In the square below, the length of each side is 1 unit. What is the area of the square?

A. 1 sq. unit
B. 2 sq. units
C. 4 sq. units
D. 0 sq. units

2. What is the area for the rectangle below?

A. 5 sq. unit
B. 6 sq. units
B. 4 sq. units
C. 8 sq. units

3. What is the area for the rectangle below?

Answer:_____

4. Fill in the missing side length of the rectangle so that the area equals 12 sq. in.

Measurement and Data

3.MD.6. Measure areas by counting unit squares.

1. What is the area of the shape in the picture?

Answer:_____

2. What is the area of the shape that is shaded in the picture?

Answer:_____

3. What is the area of the shape that is shaded in the picture?

Answer:_____

4. What is the area of the shape in the pictures?

Answer:_____

ANSWER KEY

3.OA.1	3.OA.2	3.OA.3	3.OA.4	3.OA.5
1. C 2. B 3. C 4. D	1. A 2. C 3. 5 cupcakes 4. 7 shirts	1. B 2. A 3. C 4. D	1. A 2. C 3. D 4. B	1. 2x5 2. B 3. C 4. False
3.OA.6	**3.OA.7**	**3.OA.8**	**3.OA.9**	**3.NBT.1**
1. A 2. C 3. 4 4. 63	1. 40 2. 12 3. 5 4. 3	1. C 2. D 3. A 4. A	1. B 2. C 3. D 4. B	1. C 2. B 3. C 4. B
3.NBT.2	**3.NBT.3**	**3.NF.1**	**3.NF.2**	**3.NF.3**
1. 652 2. 410 3. 605 4. 930	1. 200 2. 240 3. 200 4. 90	1. C 2. B 3. C 4. B	1. ½ 2. ⅗, ⅘ 3. 3/8, 6/8 4. 5/16	1. 2/4 2. 2/6 3. = 4. 2/4, 3/6, 4/8, etc.
3.MD.1	**3.MD.2**	**3.MD.3**	**3.MD.4**	**3.MD.5**
1. 6.5 hours 2. 2 hrs 35 mins 3. 3 hrs 25 mins 4. 5 hrs 54 mins	1. A 2. B 3. C 4. B	1. C 2. A 3. Bar graphs may vary 4. Picture graphs may vary	1. 2 ½ in 2. 3 in 3. 1 ½ in 4. 5 ½ in	1. A 2. B 3. 35 sq. cm 4. 4 sq. cm
3.MD.6	**3.MD.7**	**3.MD.8**	**3.G.1**	**3.G.2**
1. 8 sq. in 2. 45 sq. cm 3. 18 sq. cm 4. 8 sq. un	1. See below 2. C 4. 72 sq. ft	1. 28 m 2. 26 cm 3. 28 m 4. 5x5, 4x6, 3x7, 2x8, 1x9	1. B 2. Square 3. C 4. Pentagon	1. C 2. C 3. A 4. Varies