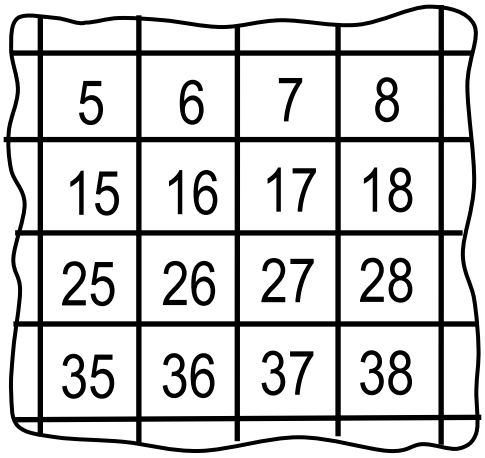
Name:_____ Date: _____

Standard Assessed: 4.OA.4



5	6	7	8
15	16	17	18
25	26	27	28
35	36	37	38

1. Garrett and Erin were playing a game on a numbered game board. A section of their game board is shown to the right.

In the game, players have to cover numbers that are multiples of **both** 2 and 3.

a. Circle all the numbers on this section of the game board that are multiples of **both** 2 and 3.

b. Write a number that is Prime & write a number that is Composite

c. The game board Garrett and Erin are using has all the numbers from 1 to 100. Identify three other numbers on the game board besides the ones you circled above that are also multiples of **both** 2 and 3. _____ _____ _____

2. Jack is 36 years old. He went to a birthday party for someone in his family named Alicia. When he was there, he realized that his age is a multiple of Alicia's age. Find all the possible ages that Alicia could be. Show your work in the space below, and then write your answers on the lines.

4. Kaitlyn was playing with her little brother Declan, building towers with his blocks. Declan's colored blocks are each a different size. The chart to the right shows the color and size of each block.

Color	Size
Blue	4 inches
Red	7 inches
Yellow	9 inches
Green	5 inches
Orange	6 inches

a. Kaitlyn built a tower that used only red blocks. Which of the following could be the height of the tower? Place a check next to each possible height of her red tower and justify why it could be the height of Kaitlyn's tower.

___ 36 inches ___ 56 inches ___ 42 inches

___ 28 inches ___ 62 inches ___ 84 inches

b. Kaitlyn built a second tower that was 60 inches tall. She used blocks that were all the same color. What colors could she have used?

<table>
<tr><td colspan="4">Teacher notes:

• The target concept of this task is described in 4.OA.4: Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.</td></tr>
<tr><td colspan="2">Not yet: Student shows evidence of misunderstanding, incorrect concept or procedure.</td><td colspan="2">Got It: Student essentially understands the target concept.</td></tr>
<tr><td>1 Below Basic:

Little Accomplishment

The task is attempted and some mathematical effort is made. There may be fragments of accomplishment but little or no success. Further teaching is required.</td><td>2 Basic:

Partial Accomplishment

Part of the task is accomplished, but there is lack of evidence of understanding or evidence of not understanding. Further teaching is required.</td><td>3 Proficient:

Substantial Accomplishment

Student could work to full accomplishment with minimal feedback from teacher. Errors are minor. Teacher is confident that understanding is adequate to accomplish the objective with minimal assistance.</td><td>4 Advanced:

Full Accomplishment

Strategy and execution meet the content, process, and qualitative demands of the task or concept. Student can communicate ideas. May have minor errors that do not impact the mathematics.</td></tr>
<tr><td colspan="4">Adapted from Van de Walle, J. (2004) Elementary and Middle School Mathematics: Teaching Developmentally. Boston: Pearson Education, 65</td></tr>
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