

**3:1** There are five teams in the volleyball league. Every team has six players. How many players are in the volleyball league?  
Equation model: \_\_\_\_\_  
Answer: \_\_\_\_\_

**3:4** Jasmine bought 45 corn seeds. She arranged the seeds into piles of 9 seeds each. How many piles were there?  
Equation model: \_\_\_\_\_  
Answer: \_\_\_\_\_



**3:9** Our class painted pictures. The teacher will hang the pictures on 4 bulletin boards. The teacher will hang the same number of pictures on each board. How many pictures will be on each board? There are 32 pictures to hang.

**3:2**

The picture shows a dog sleeping on a rug. The rug design is a rectangular array of squares with a dot in each square.

Below are four expressions. One expression equals the total number of dots in the rug design. Which expression equals the total number of dots in the rug design? Tell how you decided.

$12 \times 14$ ,  $11 \times 14$ ,  $12 \times 15$ ,  $11 \times 15$

**3:5** Our class picked up litter on the playground. One student wrote tally marks to record the things we picked up.

Paper IIII IIII IIII IIII  
Plastic IIII IIII IIII IIII IIII IIII IIII  
Glass IIII IIII  
Garbage IIII IIII IIII IIII IIII IIII

Show the data another way by drawing a scaled picture graph in which 1 picture stands for 10 things picked up.

**3:6** Using what you know about fractions, decide which is greater,  $\frac{1}{73}$  or  $\frac{1}{41}$ . Tell how you decided.

**3:10** Alice forgot what  $7 \times 8$  equals. Alice knows that  $5 \times 8 = 40$  and  $2 \times 8 = 16$ .

- (1) Write a sentence to tell Alice how she can find the value of  $7 \times 8$  by using the two facts she knows.
- (2) Draw a diagram that could help Alice understand why your method works.
- (3) Choose two numbers other than 7 and 8, and try using your method to multiply them. Will your method work for any pair of factors? Say why you think so.

**3:11** Steven, Hawa, and 4 more friends went to the park. Steven brought 24 water balloons. Hawa brought 24 water balloons. Nobody else brought water balloons. The 6 friends shared all the water balloons equally. How many water balloons did each friend get?



**3:3** (1) How much area is shaded?

1 unit of length

(2) Using a ruler, draw a rectangle with area 28 square centimeters. Write the length and width of your rectangle.  
Length: \_\_\_\_\_ Width: \_\_\_\_\_

**3:7** Here is a list of numbers. Where does each number belong on the number line?

$\frac{1}{2}$ ,  $\frac{1}{4}$ , 2,  $\frac{5}{4}$ ,  $\frac{2}{2}$ ,  $\frac{3}{2}$ ,  $\frac{6}{4}$ ,  $\frac{2}{4}$ ,  $\frac{3}{1}$

Draw a dot to show the location of each number. Label each dot. The first number in the list has been located for you.

**3:12** Write the value of each product. Use as much time as you need. If you "just knew it," then draw a check mark, like this:  
 $2 \times 2 = \underline{4}$  ✓

[Click here for student handout 3:12](#)

**3:13** Write the number that makes each equation true. Use as much time as you need.

[Click here for student handout 3:13](#)

**3:8**

- (1) Name two attributes that are shared by triangles and squares.
- (2) Name a category of shapes that includes triangles and squares and also includes other shapes that have both of the attributes you named.

**3:14** Write the sums and differences.

				Mentally
With pencil and paper				800 - 300
351	264	625	831	240 + 540
<u>+ 472</u>	<u>+ 438</u>	<u>- 261</u>	<u>- 444</u>	365 - 165
				612 - 13

# Math Milestones™ Task List — Grade 3

The 14 Math Milestones™ tasks for grade 3 have been carefully crafted to embody grade 3 mathematics on one page.

<b>3:1</b> Volleyball Players	C A	3.OA.A.3, 3.OA.A
<b>3:2</b> Hidden Rug Design	C	3.OA.A.1
<b>3:3</b> Length and Area Quantities	C	3.MD.C
<b>3:4</b> Corn Seeds	C A	3.OA.A.3, 3.OA.A
<b>3:5</b> Playground Cleanup	A	3.MD.B.3
<b>3:6</b> Unit Fraction Ideas	C	3.NF.A
<b>3:7</b> Locating Numbers on a Number Line	C	3.NF.A
<b>3:8</b> Shape Attributes and Categories	C	3.G.A.1
<b>3:9</b> Bulletin Board Pictures	C A	3.OA.A.3, 3.OA.A
<b>3:10</b> Alice's Multiplication Fact	C P	3.OA.B.5, 3.MD.C.7b
<b>3:11</b> Water Balloons	A	3.OA.D.8
<b>3:12</b> Products of Single-Digit Numbers	P	3.OA.C.7
<b>3:13</b> Fluency within the Multiplication Table	P	3.OA.C.7, 3.OA.A.4, 3.OA.A, B, C
<b>3:14</b> Fluency within 1000 (Add/Subtract)	P	3.NBT.A.2

C = Task has a conceptual focus.

P = Task has a procedural skill & fluency focus.

A = Task has an application focus.

## Standards for Mathematical Practice

<b>MP.1</b> Make sense of problems and persevere in solving them.	3:1, 3:4, 3:6–12
<b>MP.2</b> Reason abstractly and quantitatively.	3:1–4, 3:5, 3:7, 3:9
<b>MP.3</b> Construct viable arguments and critique the reasoning of others.	3:2, 3:6, 3:10
<b>MP.4</b> Model with mathematics.	3:1, 3:4, 3:5, 3:9, 3:11
<b>MP.5</b> Use appropriate tools strategically.	3:3, 3:7
<b>MP.6</b> Attend to precision.	3:2, 3:3, 3:5, 3:7, 3:12–14
<b>MP.7</b> Look for and make use of structure.	3:2, 3:3, 3:6–8, 3:10, 3:13, 3:14
<b>MP.8</b> Express regularity in repeated reasoning.	3:6, 3:10

Standards codes refer to [www.corestandards.org](http://www.corestandards.org). One purpose of the codes is that they may allow a task to shed light on the Standards cited for that task. Conversely, reading the cited Standards may suggest opportunities to extend a task or draw out its implications. Finally, Standards codes may also assist with locating relevant sections in curriculum materials, including materials aligned to comparable standards.



Math Milestones™ was created by Jason Zimba, John W. Staley, Elizabeth Meier, Sandra Alberti, Harold Asturias, and Phil Daro.

Math Milestones™ tasks are not designed for summative assessment. Used formatively, the tasks can reveal and promote student thinking. Student work on tasks could be collected in student portfolios.

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