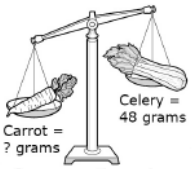
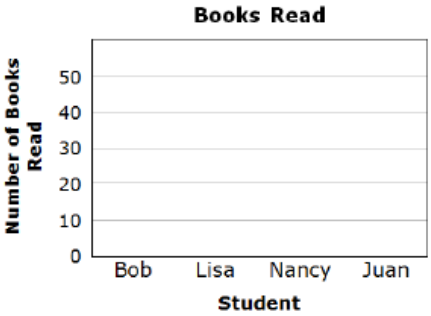
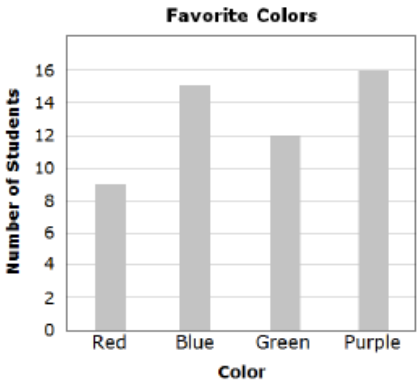
SBACC Grade 3 Analysis of Questions for Claim 1 Domain of Measurement and Data

Standard DOK	Evidence	Question
DOK Level 1 **3.MD.1**	tells and writes time to the nearest minute.	**Example Stem:** Use this clock to answer the question. Select the time, to the nearest minute, shown on the clock. A. 1:15 B. 2:07 C. 3:07 D. 7:15
DOK Level 2 **3.MD.1**	solves one-step word problems with addition and subtraction including time intervals in minutes.	A music class starts at 1:32 p.m and ends at 2:15 p.m. Enter the length, in minutes, of the music class.
DOK Level 2 **3.MD.A.2**	solves one-step word problems involving liquid volume (liters) and mass (grams, kilograms) using the four operations.	**Example Stem 1:** A bunch of celery has a mass of 48 grams. A carrot has a mass that is 15 grams more than the celery. Enter the mass, in grams, of the carrot.  **Example Stem 2:** A farmer takes 46 kilograms of potatoes to the market. The farmer sells 29 kilograms of the potatoes. Enter the number of kilograms of potatoes the farmer has left. **Example Stem 3:** Harold buys 2-liter bottles of juice for a picnic. He buys 8 bottles. How many liters of juice did Harold buy? **Example Stem 4:** Mrs. Ross made 48 liters of fruit juice for a school picnic. She gives all of the juice to 8 classrooms with each classroom getting the same amount of juice. How many liters of juice does Mrs. Ross give each classroom?
DOK Level 2 **3.MD.B.3**	creates a scaled picture graph and a scaled bar graph to represent a data set with up to four	**Example Stem 1:** Marco and Beth each read the number of books shown. Click in each row to create a picture graph that shows the number of books each student read. Student / Number of Books Read: Marco 12; Beth 21 Student / Number of Books Read: Marco; Beth Key: represents 3 books **Example Stem 2:** Four students read the number of books shown. Student / Number of Books Read: Bob 15; Lisa 50; Nancy 25; Juan 40 Click in each column to create a bar graph that shows the number of books that each student read. 

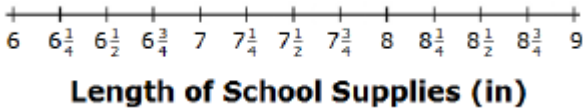
<table>
<tr>
<td>DOK Level 2
3.MD.B.3</td>
<td>solves one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs.</td>
<td>
Example Stem 1: Students voted for their favorite colors. Use the bar graph to answer the question.

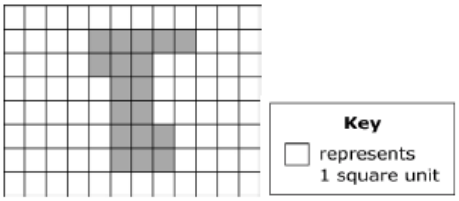
Example Stem 2: Students voted for their favorite colors. Use the bar graph to answer the question.
How many fewer students voted for red than purple?

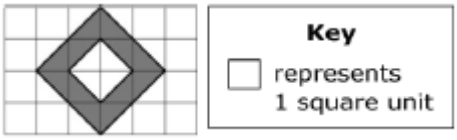
Example Stem 3: Students voted for their favorite colors. Use the bar graph to answer the question.
How many more students voted for purple and blue than green?

Example Stem 4: Students voted for their favorite colors. Use the bar graph to answer the question.
How many fewer students voted for red than purple and blue?


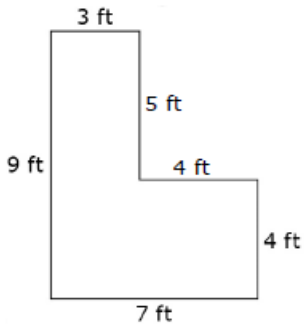
</td>
</tr>
<tr>
<td>DOK Level 2
3.MD.B.4</td>
<td>generates measurement data by measuring lengths using rulers marked with halves and fourths of an inch and makes a line plot with fractional measurement values.</td>
<td>
<table>
<tr><th>School Supply</th><th>Length (in)</th></tr>
<tr><td>Pencil</td><td>$7\frac{1}{4}$</td></tr>
<tr><td>Paper</td><td>$8\frac{1}{2}$</td></tr>
<tr><td>Stapler</td><td>$6\frac{3}{4}$</td></tr>
<tr><td>Paintbrush</td><td>$8\frac{1}{2}$</td></tr>
<tr><td>Marker</td><td>$6\frac{1}{2}$</td></tr>
</table>
Example Stem: A boy measures the length of some items in his desk. This chart shows the length, in inches, of each item.

Click above the tick marks to complete the line plot that displays the data.


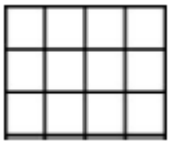
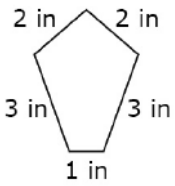
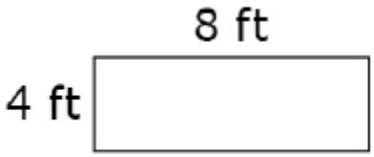
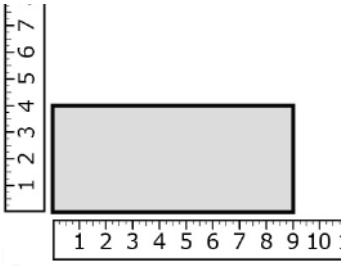
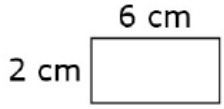
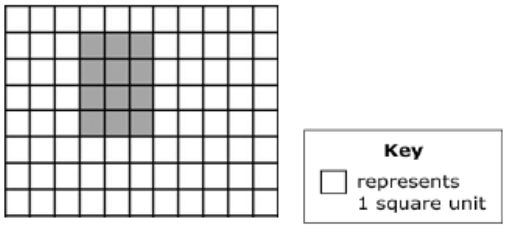
Length of School Supplies (in)
</td>
</tr>
<tr>
<td>DOK Level 2
3.MD.C.6</td>
<td>measures areas by counting unit squares.</td>
<td>
Example Stem 1: Use this diagram to solve the problem.
Enter the area, in square units, of the shaded figure.


Example Stem 2: Use this diagram to solve the problem.
Enter the area, in square units, of the shaded figure.


</td>
</tr>
<tr>
<td>DOK Level 2
3.MD.C.7d</td>
<td>finds areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts.</td>
<td>
Example Stem: This figure is made by joining two rectangles.

Enter the total area, in square feet, of the figure.


</td>
</tr>
</table>

DOK Level 2 **3.MD.C.7a**	finds the area of a rectangle with whole-number side lengths by tiling it, and shows that the area is the same as would be found by multiplying the side lengths.	**Example Stem:** This figure is tiled with square units.  Which expression could be used to find the area of this figure in square units? A. 3 + 4 B. 3 × 4 C. 3 + 3 + 4 + 4 D. 3 × 3 × 4 × 4
DOK Level 1 **3.MD.D.8**	solves real-world and mathematical problems involving finding the perimeter of a polygon given the side lengths.	**Example Stem 1:** The length of each side of the polygon is shown.  Enter the perimeter, in inches, of the polygon.  **Example Stem 2:** Ms. Smith needs to find the perimeter of her rectangular garden. She wants to put a fence around her entire garden. Her garden measures 8 feet by 4 feet as shown. Enter the perimeter, in feet, of the garden. **Example Stem 3:** The rulers give the measurement for two sides of the rectangle. Enter the perimeter, in inches, of the rectangle.  **Example Stem 4:** The rectangle shown has side lengths 6 centimeters and 2 centimeters.  Enter the perimeter, in centimeters, of the rectangle.
	distinguishes between area and perimeter of a rectangle.	**Example Stem:** A shaded rectangle is shown on the grid.  **Part A:** What is the perimeter, in units, of the rectangle? Enter your answer in the first response box. **Part B:** What is the area, in square units, of the rectangle? Enter your answer in the second response box.

SBACC Grade 3 Analysis of Questions for Claim 2-4 Domain of Measurement and Data

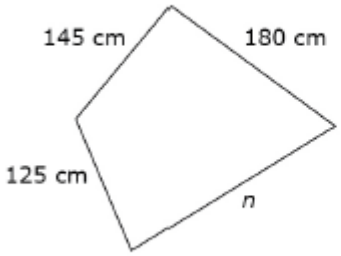
Claim 2: (Primary emphasis on operations of numbers and measurement and data.)

James gets home from school at 3:30 p.m. He completes 2 chores. Then he plays his computer game until 5:00 p.m.

Chore	Time to Complete
Walk dog	20 minutes
Clean room	40 minutes

Enter the **greatest** number of minutes that James can play his computer game.

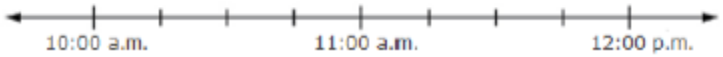
This quadrilateral has a perimeter of 680 centimeters.



Enter the length, in centimeters, of side *n*.

Math class begins at 10:45 a.m. and is 45 minutes long.

Use the Add Point tool to put a point on the number line that shows when math class ends.



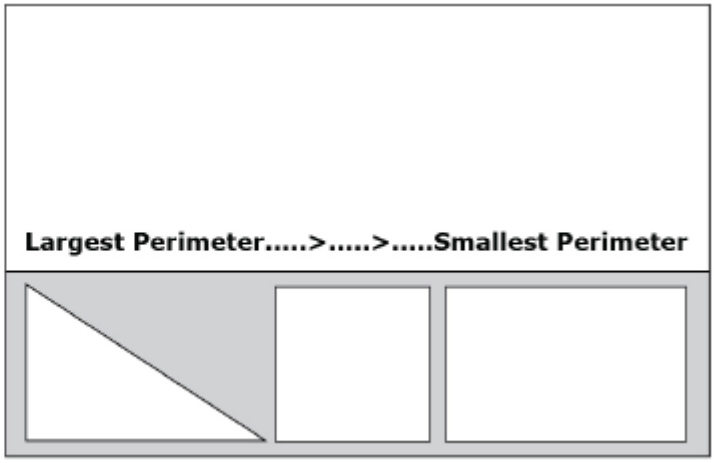
Mary started her homework 25 minutes before the time shown on the clock.

Fill in the table to show the time when Mary started her homework.

___ :___

Order all three figures so that the one on the left has the largest perimeter and the one on the right has the smallest perimeter.

Drag each figure into the space in order of its perimeter.



What is the area of each figure?

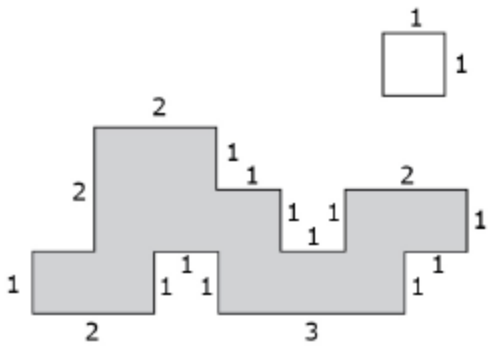


Figure A

The area of Figure A is ☐ square units.

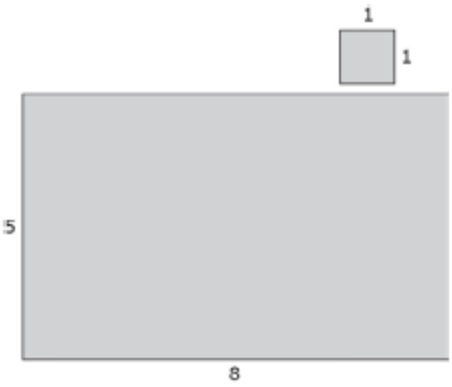


Figure B

The area of Figure B is ☐ square units.

Claim 4: (Primary emphasis on operations of numbers and measurement and data.)

What is the difference, in minutes, between Patty's start time and Mike's start time?

The table shows the start and end times for runners in a race.

Racing Times		
Runner	**Start Time**	**End Time**
Mike	12:03 p.m.	12:26 p.m.
Ann	12:10 p.m.	12:17 p.m.
John	12:13 p.m.	12:19 p.m.
Patty	12:16 p.m.	12:25 p.m.

What is the difference, in minutes, between Patty's start time

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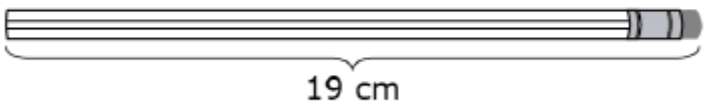
Part A

Estimate the length of this unsharpened pencil, in centimeters. [ ]

Enter your estimate in the response box.

Part B

The length of the pencil is about 19 cm.



How much longer or shorter is your estimate than the real length? [ ]

Enter your answer in the response box.