

Objectives:

- Students will divide positive integers from the multiplication table without remainders, as evidenced by them passing one-minute quizzes.
- Students will write the dimensions and find the perimeter of individual Algeblocks, as evidenced by them completing a warm-up worksheet where they do so.
- Students will combine like terms by finding the perimeter of configurations of Algeblocks, as evidenced by them completing an in-class lab and a homework assignment where they do so.

Materials:

- “Minute Quiz 4-3” for each student
- “Handouts 4-3” for each student (which includes a warm-up, lab, and homework).
- “Lab 4-3” transparency
- Note: Algeblocks are not needed for this lesson

Do Now:

- Park stuff
- Work on warm-up
- Get ready for minute quiz

Homework:

- Homework #4-3
- 4 hours of ALEKS due Friday

Time	Activity
Before Bell	<p style="text-align: center;">AGENDA, DO NOW, AND WARM-UPS</p> <p>Write the agenda and the do now on the board. As students enter the classroom, shake their hands, give them a copy of the warm-up, and direct them to follow the directions listed for the “do now.”</p>
10 min	<p style="text-align: center;">MINUTE QUIZ, WARM-UPS, ATTENDANCE, AND HOMEWORK COLLECTION</p> <p>Minute Quiz and Warm-up When the bell rings, quickly go around and put the minute quiz on each student’s desk, face down. Then, start everyone on the quiz at the same time and give everyone one minute. While students are working on the quiz, pass out new warm-up & notes checkers for the week. Students should work on the warm-up when they’re done with the minute quiz. After the minute is over, have a student collect the minute quizzes and give them to the teacher’s aide (TA) to grade.</p> <p>Attendance and Collect Homework While students work on the warm-up, take attendance and have the TA collect homework & stamp homework checkers.</p>
5 min	<p style="text-align: center;">ANNOUNCEMENTS</p> <p>Explain to students that you have a couple announcements to make.</p> <p>4 Hours of ALEKS due Today Ask students, <i>The first announcement has to do with ALEKS. This week, how many hours of ALEKS do you need to have by Friday?</i> Point to the homework assignment that indicates the answer. <i>[Four.]</i></p> <p>Unit Calendar Say: <i>The second announcement is to remind you what we’re doing this unit.</i> Put the unit 4 calendar transparency on the overhead so that students can see it. Point to the title and say, <i>Last week, we started a new unit on polynomials.</i> Point to lesson 4-1 and say, <i>For the first lesson, we had an introduction to polynomials and saw how to represent them using Algeblocks.</i> Point to lesson 4-2 and say, <i>For the second lesson, we used Algeblocks to simplify polynomials.</i> Point to today’s lesson (lesson 4-3). Say: <i>Today, we will find the perimeter of Algeblock configurations.</i> Point to future lessons this week (lesson 4-4 and 4-5) and say, <i>Later this week, we will begin adding, subtracting, multiplying, and dividing polynomials, and we will get to see how great these Algeblocks are. Remember, we will be able to solve some crazy problems really easily using these Algeblocks—it’ll be a snap!</i></p>
25 min	<p style="text-align: center;">ALGEBLOCKS LAB: PERIMETER PROBLEMS</p>

Lesson 4-3 – Algeblock Perimeter Problems

	<p>Go through the Warm-up Go through the warm-up (it's on the same page as Lab 4-2, so you already have a transparency of it) to review the dimensions and perimeter of each Algeblock. Students must know this in order to find the perimeter of more complicated Algeblock configurations.</p> <p>Lab Worksheet: Perimeter Problems Go through Lab 4-3 to find the perimeter of complicated Algeblock configurations. The purpose of this is to give students an opportunity to practice combining like terms. You have a transparency of this lab worksheet.</p>
35 min	<p style="text-align: center;">ALEKS</p> <p>After all Algeblocks have been put away, dismiss students by column to get laptops for ALEKS. While students work on ALEKS, have the TA go around and stamp homework & notes checkers. For today's notes points, students must've completed the Algeblocks lab.</p>
5 min	<p style="text-align: center;">CLEAN UP</p> <p>Students must check the laptops with the teacher or the TA before putting them away. After putting the laptops away, students should pack up, sit in their seats, and wait to be dismissed by the teacher (not by the bell).</p>

Solve the following division problems. You have exactly one minute!

$6 \div 3 =$

$64 \div 8 =$

$5 \div 1 =$

$9 \div 9 =$

$60 \div 6 =$

$50 \div 5 =$

$4 \div 1 =$

$12 \div 6 =$

$44 \div 4 =$

$6 \div 3 =$

$10 \div 5 =$

$1 \div 1 =$

Solve the following division problems. You have exactly one minute!

$6 \div 3 =$

$64 \div 8 =$

$5 \div 1 =$

$9 \div 9 =$

$60 \div 6 =$

$50 \div 5 =$

$4 \div 1 =$

$12 \div 6 =$

$44 \div 4 =$

$6 \div 3 =$

$10 \div 5 =$

$1 \div 1 =$

Solve the following division problems. You have exactly one minute!

$6 \div 3 =$

$64 \div 8 =$

$5 \div 1 =$

$9 \div 9 =$

$60 \div 6 =$

$50 \div 5 =$

$4 \div 1 =$

$12 \div 6 =$

$44 \div 4 =$

$6 \div 3 =$

$10 \div 5 =$

$1 \div 1 =$

Solve the following division problems. You have exactly one minute!

$16 \div 4 =$

$77 \div 11 =$

$144 \div 12 =$

$66 \div 6 =$

$63 \div 7 =$

$50 \div 5 =$

$25 \div 5 =$

$108 \div 12 =$

$54 \div 6 =$

$99 \div 11 =$

$132 \div 11 =$

$7 \div 7 =$

Solve the following division problems. You have exactly one minute!

$16 \div 4 =$

$77 \div 11 =$

$144 \div 12 =$

$66 \div 6 =$

$63 \div 7 =$

$50 \div 5 =$

$25 \div 5 =$

$108 \div 12 =$

$54 \div 6 =$

$99 \div 11 =$

$132 \div 11 =$

$7 \div 7 =$

Solve the following division problems. You have exactly one minute!

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$77 \div 11 =$

$144 \div 12 =$

$66 \div 6 =$

$63 \div 7 =$

$50 \div 5 =$

$25 \div 5 =$

$108 \div 12 =$

$54 \div 6 =$

$99 \div 11 =$

$132 \div 11 =$

$7 \div 7 =$

Solve the following division problems. You have exactly one minute!

$35 \div 5 =$

$20 \div 10 =$

$8 \div 1 =$

$35 \div 7 =$

$36 \div 3 =$

$50 \div 5 =$

$2 \div 1 =$

$100 \div 10 =$

$88 \div 11 =$

$33 \div 3 =$

$15 \div 5 =$

$20 \div 2 =$

Solve the following division problems. You have exactly one minute!

$35 \div 5 =$

$20 \div 10 =$

$8 \div 1 =$

$35 \div 7 =$

$36 \div 3 =$

$50 \div 5 =$

$2 \div 1 =$

$100 \div 10 =$

$88 \div 11 =$

$33 \div 3 =$

$15 \div 5 =$

$20 \div 2 =$

Solve the following division problems. You have exactly one minute!

$35 \div 5 =$

$20 \div 10 =$

$8 \div 1 =$

$35 \div 7 =$

$36 \div 3 =$

$50 \div 5 =$

$2 \div 1 =$

$100 \div 10 =$

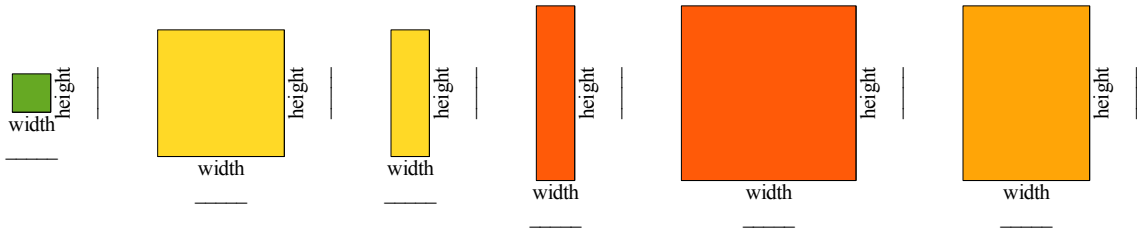
$88 \div 11 =$

$33 \div 3 =$

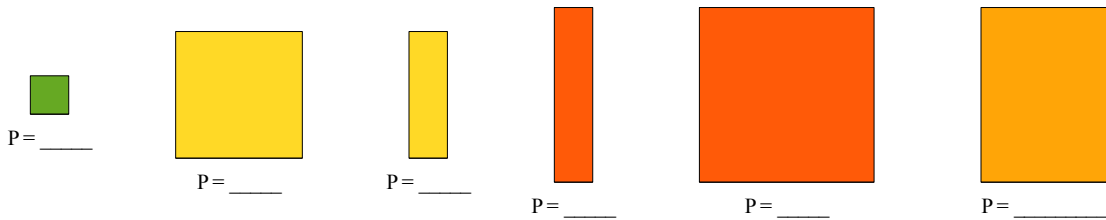
$15 \div 5 =$

$20 \div 2 =$

Fill in the blanks with the width and height of each Algeblock.



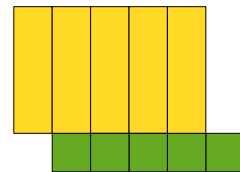
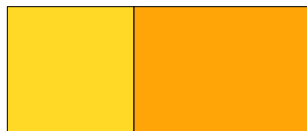
The perimeter of a object is the distance around the object (the sum of the lengths of all the sides). Find the perimeter of each Algeblock.



Find the perimeter of each configuration of Algeblocks.

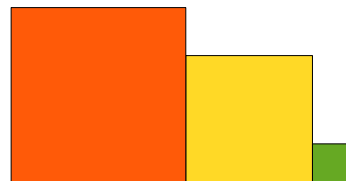
1. Perimeter = _____

2. Perimeter = _____



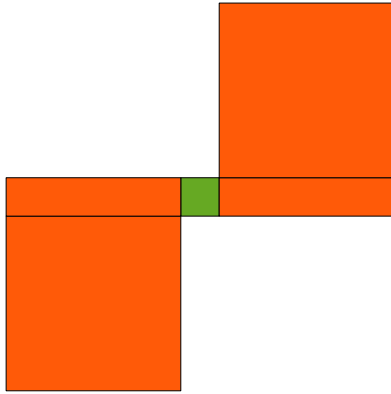
3. Perimeter = _____

4. Perimeter = _____

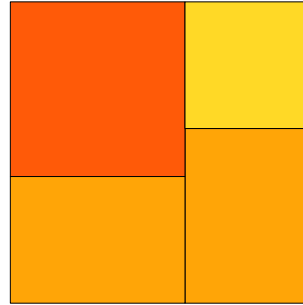


The perimeter of an object is the distance around the object (the sum of the lengths of all the sides). Find the perimeter of each configuration of Algeblocks.

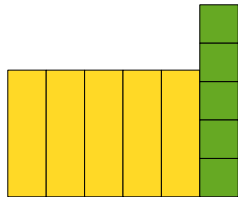
1. Perimeter = _____



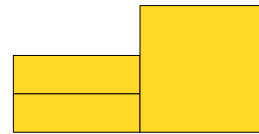
2. Perimeter = _____



3. Perimeter = _____

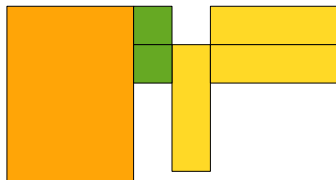


4. Perimeter = _____

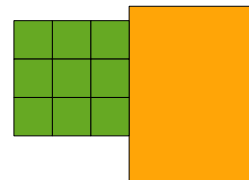


Extra Credit Challenge Problems

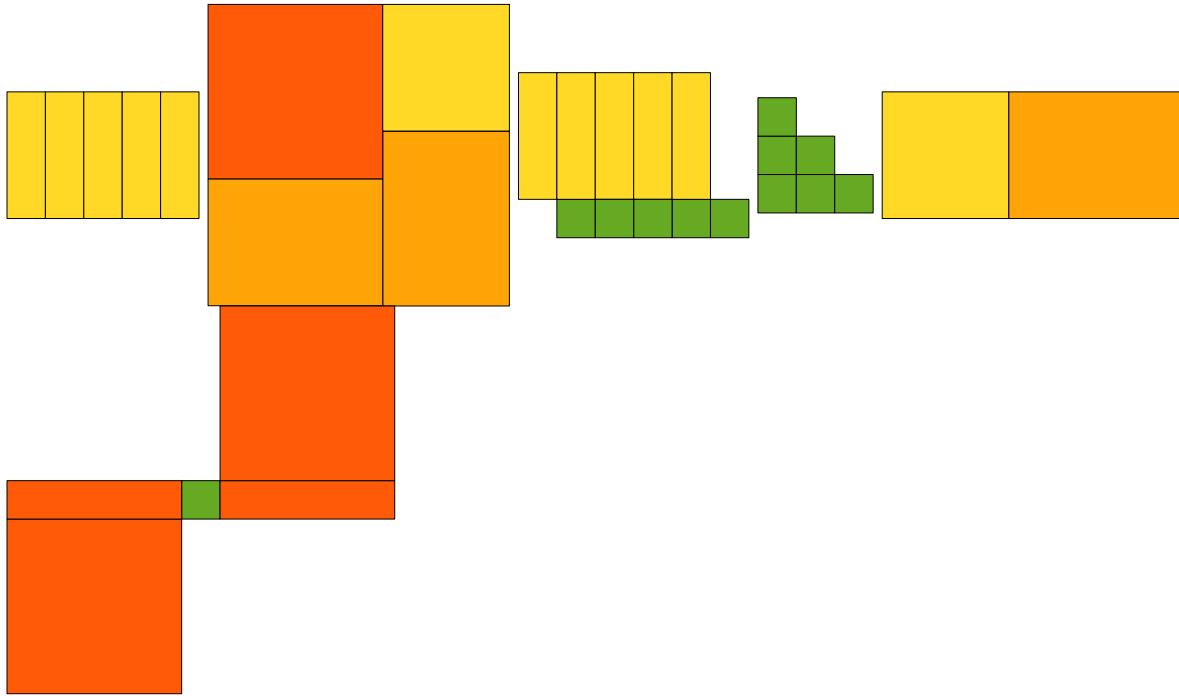
5. Perimeter = _____



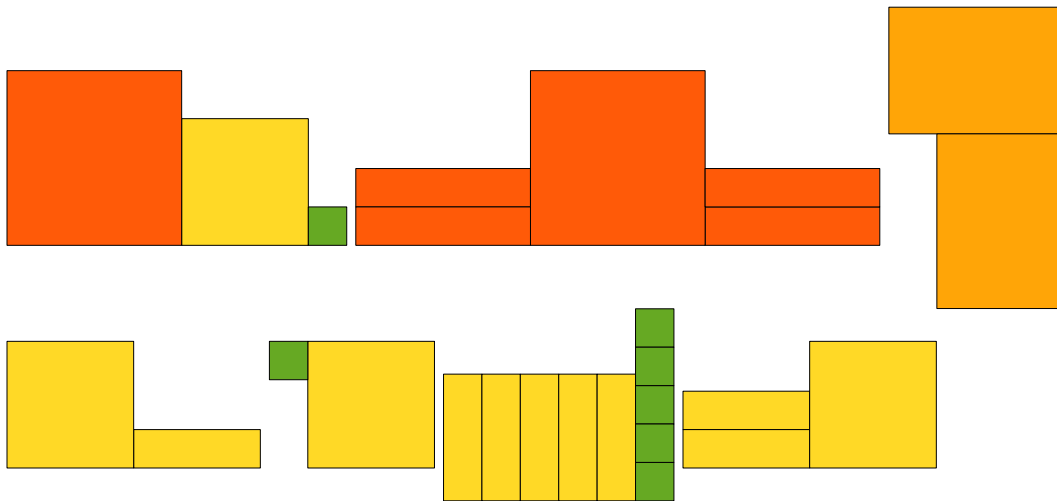
6. Perimeter = _____



Easy Problems
(Can just add up the sides.)



Medium Problems
(Must infer the lengths of some sides.)



Challenge Problems
(Must infer the lengths of many sides.)

