



# Are you ready for Beast Academy 3B?



Before beginning Beast Academy 3B, a student should be able to classify polygons, skip-count, and understand the concepts of perimeter and area.

A student ready for Beast Academy 3B should be able to answer at least 9 of the 13 problems below correctly.

**Step 1.** The student should try to answer every question without a calculator and without help.

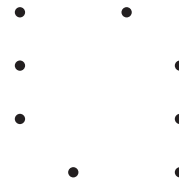
**Step 2.** Check the student's answers using the solutions at the end of this document.

**Step 3.** The student should be given a second chance on problems that he or she answered incorrectly.

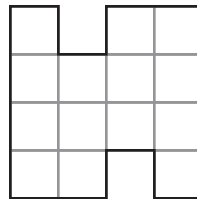
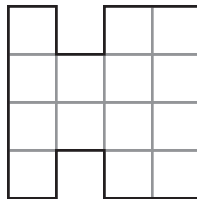
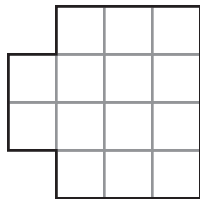
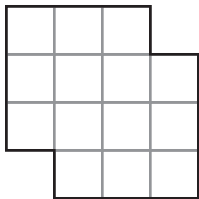
1. Connect 3 of the points below to make an obtuse triangle.



2. Connect 4 of the points below to make a square.



3. Circle the shape or shapes below that **cannot** be made with seven dominoes (, ).



**Fill in the blanks to complete each skip-counting pattern below:**

4. 5, 10, 15, \_\_\_\_\_, 25, \_\_\_\_\_, \_\_\_\_\_, 40, ...
5. 13, 19, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 43, 49, \_\_\_\_\_, 61, ...
6. \_\_\_\_\_, \_\_\_\_\_, 23, \_\_\_\_\_, 31, \_\_\_\_\_, \_\_\_\_\_, 43, ...



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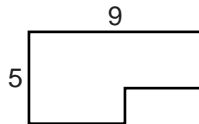
**Answer each:**

7. Ella begins at 9 and skip-counts by 7's. Jack begins at 9 and skip-counts by 8's. What is the next number that both Ella and Jack will say? 7. \_\_\_\_\_

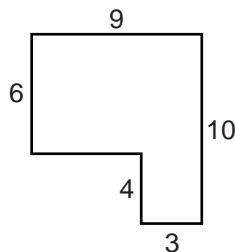
8. What is the perimeter of a regular pentagon with sides of length 7? 8. \_\_\_\_\_

9. The height of a rectangle is increased by 3 inches. The new rectangle has a perimeter of 30 inches. What was the perimeter of the original rectangle? 9. \_\_\_\_\_

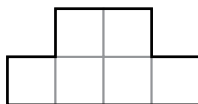
10. What is the perimeter of the rectilinear shape below? 10. \_\_\_\_\_



11. What is the area of the rectilinear shape below? 11. \_\_\_\_\_



12. Six squares are arranged as shown. The perimeter of each square is 5. What is the perimeter of the shape they make? 12. \_\_\_\_\_



13. One side of a triangle is 3 inches long. Another side of the same triangle is 6 inches long. Circle every value below that *could* be the length of the triangle's third side.

2 inches      5 inches      8 inches      11 inches      14 inches