Are you ready for Beast Academy 5A?

Before beginning Beast Academy 5A, a student should be familiar with variables, adding and subtracting integers and decimals, and multiplying whole numbers with fractions.

A student ready for Beast Academy 5A should be able to answer at least 14 of the 18 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.

Evaluate each sum, difference, or product below.

1. $1.234 + 9.87 =$ _____

2. $5.15 - 1.515 =$ _____

3. $\frac{5}{12} \times 9 =$ _____

4. $7 \times 11\frac{3}{8} =$ _____

5. $7 + 8 - 9 - 10 =$ _____

6. $-4 - (-3) + (-2) - (-1) =$ _____

7. What is the perimeter of a regular hexagon with side length $4\frac{3}{4}$ ft?

7. _____

8. What is the probability that a randomly selected factor of 36 is odd?

8. _____

Fill the missing cells of each grid below so that each row, column, and diagonal has the sum given.

9. Sum: 5.4

	0.57	
	1.8	
		0.77

10. Sum: -6

5		-4
	3	

Find the value of the variable in each equation below.

11. $5 \times w = 37$　　　　　　**12.** $s + 33 = 16$　　　　　　**11.** $w =$ _____

　　　　　　　　　　　　　　　　　　　　　　　　　　　12. $s =$ _____

Evaluate each expression below for a = 6 and b = 3.

13. $7 \times a + 18 \div (a + b)$　　　　**14.** $12 - b \times 7 \times (10 - a)$　　　　**13.** _____

　　　　　　　　　　　　　　　　　　　　　　　　　　　14. _____

**15.** Use the given digits once each to fill the blanks in the statement below so that the statement is true.

$$1, 3, 4, 5$$

$$5.\boxed{}4 < \boxed{}.3\boxed{} < 5.\boxed{}$$

16. Trace a path through the grid that crosses every number in order from least to greatest.

	0.05	0.50	5.05	
50.55	50.50	0.55	5.50
	55.05	50.05	5.55	
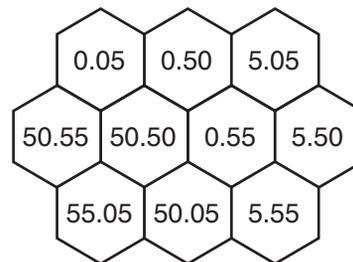
17. Five congruent rectangles are attached as shown. What is the perimeter and area of the larger rectangle they create?

22 cm

17. Perimeter: _____

Area: _____
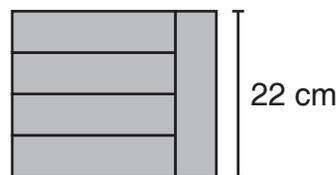
18. Rita picks a number from the list below at random.

$$10, 11, 12, \ldots, 77, 78, 79$$

What is the probability that her number is **not** divisible by 5?

18. _____