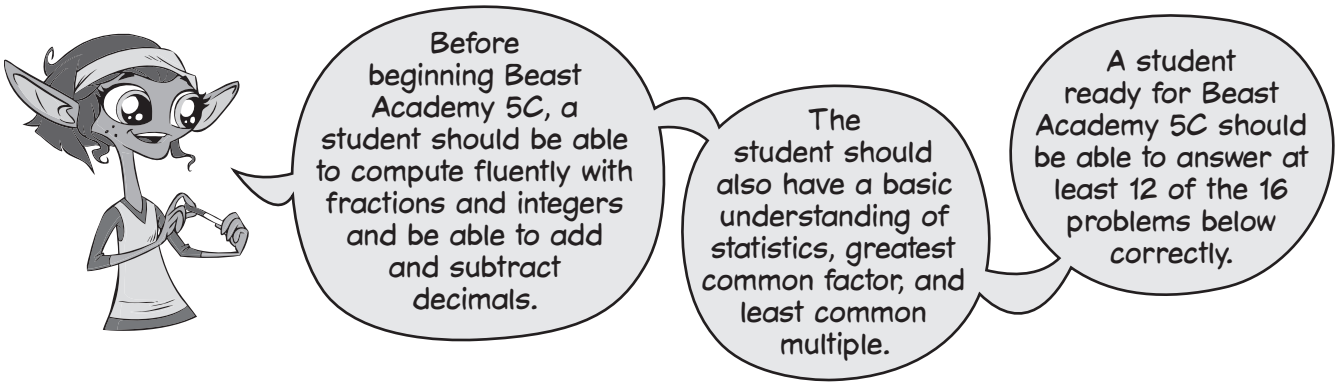
Are you ready for Beast Academy 5C?



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 expression below.

1. $4.372+11.91=$ _____

2. $8.36-1.058=$ _____

3. $3\frac{5}{6}+2\frac{3}{10}=$ _____

4. $4\frac{1}{2}-\frac{3}{5}=$ _____

5. $\frac{5}{18}\cdot\frac{12}{35}=$ _____

6. $3\frac{4}{7}\div\frac{5}{8}=$ _____

7. Order the numbers below from least to greatest. **7.** _____, _____, _____, _____

$4\frac{3}{10}$ 4.037 $\frac{437}{100}$ 4.307

8. **a.** What is the greatest common factor (GCF) of 48 and 90? **a.** GCF: _____

b. What is the least common multiple (LCM) of 48 and 90? **b.** LCM: _____

9. **a.** What is the GCF of 36, 54, and 60? **a.** GCF: _____

b. What is the LCM of 36, 54, and 60? **b.** LCM: _____

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For problems 10-12, use the given numbers to fill in the blanks so that

- ***each statement is true, and***
- ***each fraction is in simplest form.***

10. Numbers: 3, 5, 9, 20

$$\frac{\quad}{6} \cdot \frac{\quad}{\quad} = \frac{\quad}{8}$$

11. Numbers: 3, 5, 6, 14

$$\frac{\quad}{\quad} \cdot \frac{4}{\quad} = \frac{\quad}{35}$$

12. Numbers: 5, 12, 20, 30

$$\frac{3}{\quad} + \frac{\quad}{\quad} = \frac{17}{\quad}$$

Use the prime factorization below to help you answer problems 13 and 14.

$$159{,}600 = 2^4 \cdot 3 \cdot 5^2 \cdot 7 \cdot 19$$

13. What is the smallest positive integer that we can multiply 159,600 by to get a product that is a perfect square? **13.** _____

14. What is the smallest positive integer that is not a factor of 159,600? **14.** _____

15. A wheelbarrow contains five 6-pound pumpkins and some 19-pound pumpkins. If the average weight of a pumpkin in the wheelbarrow is 14 pounds, how many 19-pound pumpkins are in the wheelbarrow? **15.** _____

16. Fill each empty white square below with a ***positive digit*** so that the clues given in the surrounding shaded squares give the correct average, mode, median, and range for the row or column they label.