

NAME _____

DATE _____

Countdown: 10 Weeks

SCORE _____

1. Dr. Nicole Soto has developed Ivy-X, a poison Ivy remedy that she thinks works better than the standard treatment. Dr. Soto's data is shown.

	Got better	Got worse
Ivy-X treatment	12	4
Standard treatment	10	5

THINK SMART FOR SPAC
Sometimes you can take values directly from a table as the solution to your problem. In other cases, you may need to take the values from the table and modify them before you can find your solution.

Part A: What fraction of the patients who used Ivy-X got better? What fraction got worse?

Better: $\frac{12}{16} = \frac{3}{4}$, worse: $\frac{4}{16} = \frac{1}{4}$

Part B: What fraction of the patients who used the standard treatment got better? What fraction got worse?

Better: $\frac{10}{15} = \frac{2}{3}$, worse: $\frac{5}{15} = \frac{1}{3}$

Part C: Is Dr. Soto correct? Does Ivy-X actually work better than the standard poison Ivy treatment? Explain.

Sample answer: $\frac{3}{4}$ is greater than $\frac{2}{3}$ so Ivy-X seems to work slightly better than the standard treatment.

2. Ricky planned to spend \$20 to enter Sky Rock Water Park and buy extra tickets for 4 special rides while he is there. The special rides cost \$3 each. Ricky wrote this expression to show the total amount of money he needs to bring.

$$\$20 + 4 \times \$3$$

Using the expression above, Ricky calculates that he needs to bring a total of \$72 to the park. Is Ricky correct? Explain. If he is not correct, how much does he need to bring?

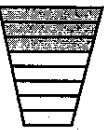
No; Ricky did not use order of operations for his calculation; \$32

3. Craig told Dave the first two numbers in his locker combination. To find the third number Craig said, "Find the sum of all of the factors of the number 20." 4.OA.4

What are the factors of the number 20? What is the third number of Craig's combination?

1, 20, 2, 10, 4, 5, 42

4. Explain why the model does or does not show $\frac{3}{8}$. 4.NF.1



The model does not show $\frac{3}{8}$ because, though 3 of 8 sections are shaded, the sections are not equal in size.

5. What mixed number is equivalent to $\frac{24}{5}$? How can you use models to show that your answer is correct? Explain. 4.NF.3

Sample answer: My model would show $4\frac{4}{5}$. 4 wholes, each divided into 5 equal parts with all of the parts shaded in. Then I would have another whole divided into 5 equal parts with 4 of the 5 parts shaded. Counting the fifths would show that I have 4×5 fifths, plus 4 more fifths, a total of $\frac{24}{5}$.