

NAME \_\_\_\_\_ DATE \_\_\_\_\_

**Countdown: 9 Weeks**

SCORE \_\_\_\_\_

1. The attendance at a town hall meeting is expected to be 75. Folding chairs for the meeting are arranged in rows of 6. 4.NBT.6

Part A: How many rows are needed to fit all of the people?

13

Part B: If exactly 75 people show up for the meeting, how many seats will be left empty?

3

2. Between 0 and 99, the greatest number of prime numbers end in which digit — 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9? Explain. 4.OA.A

Prime numbers from 0–99 are: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97. There are 7 prime numbers ending in 3, which is the most of any digit.

**THINK SMART FOR SBAC**  
For problems like this one you might find it helpful to use the problem-solving strategy of make a list. Use this strategy whenever you have a group of items from which you need to find a pattern.

3. Kalief claims that he can carry out any mathematical operation forward or backward. As an example, Kalief shows the equations below. Is Kalief correct? Explain. 4.NBT.5

$7 + 4 = 11$

$4 + 7 = 11$

Kalief is not correct. Though the Commutative Property works for both addition and multiplication, it does not work for subtraction or division. For example,  $7 - 4$  does not equal  $4 - 7$ . Similarly,  $12 \div 3$  does not give the same quotient as  $3 \div 12$ .

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4. In basketball, a player is considered an “excellent” shooter if he or she makes more than half of his or her shots. 4.NF.2

Player	Shots made	Shots taken
Steve	10	16
Boris	12	24
Kim	15	35
Shaniqua	25	40

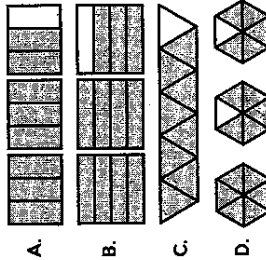
Part A: Which of these players would be considered an excellent shooter? Explain.

Steve and Shaniqua; Boris made half of his shots, but to be considered excellent, a player needs to make more than half of his or her shots.

Part B: Who was the best shooter in the group? Explain.

Both Steve and Shaniqua made the same fraction of their shots,  $\frac{5}{8}$ , so they tied for being the best shooter.

5. Explain why each model does or does not show  $\frac{8}{3}$ . 4.NF.1, 4.NF.3, 4.NF.3b



- A. The model shows  $\frac{8}{3}$  because it has 2 wholes plus  $\frac{2}{3}$  of another whole.  
 B. The model does not show  $\frac{8}{3}$  because it has 2 wholes plus  $\frac{3}{4}$ , not  $\frac{2}{3}$  of another whole.  
 C. The model does not show  $\frac{8}{3}$  because it shows  $\frac{8}{9}$ , not  $2\frac{2}{3}$ .  
 D. The model shows  $\frac{8}{3}$  because if you move the unshaded parts together, you have 2 wholes and  $\frac{2}{3}$  of another whole.

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