Problems of the Week
FSA Countdown Week 3 - PA

1. A company makes square poster frames whose sides are integer lengths. Select all of the areas that would satisfy this requirement. 8.EE.2

- ☐ 16 ft²
- ☐ 24 ft²
- ☐ 2.5 ft²
- ☐ 4 ft²
- ☐ 1 ft²
- ☐ 36 ft²
- ☐ 48 ft²

2. A company sells only items that are in the shape of cubes. Select all of the volumes of cubes with rational number side lengths. 8.NS.1

- ☐ 8 in³
- ☐ 33 cm³
- ☐ 1.5 ft³
- ☐ 9 ft³
- ☐ 1,000 m³
- ☐ (4.12 yd)³

3. Veronica and Abdul are having a contest to see who can mow the greater area of lawn over the course of a week. The table shows the amount each person mowed on each day. 8.NS.1

Day	Veronica	Abdul
Monday	$\frac{1}{2}$ acre	0.65 acre
Tuesday	$\frac{1}{3}$ acre	20% of an acre
Wednesday	$\frac{6}{5}$ acres	$1\frac{1}{4}$ acres
Thursday	1 acre	100.5% of an acre
Friday	0.767 acre	$\frac{19}{25}$ acre
Saturday	33.3% of an acre	$\frac{1}{3}$ acre
Sunday	0.55 acre	$\frac{13}{25}$ acre

Part A: Sort the days into the bin of the person who mowed the greater area that day.

| Monday | Tuesday |

| Wednesday | Thursday |

| Friday | Saturday |

| Sunday |

Veronica Mowed More	Abdul Mowed More

Part B: Who won the contest?

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4.

A school has a 20:2 student-teacher ratio. 8.EE.5

Part A: Graph a line representing this scenario.

Part B: What is the unit rate? How is it represented in the graph?

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Student-Teacher Ratio

Number of Students (y-axis: 0, 5, 10, 15, 20, 25, 30, 35, 40)

Number of Teachers (x-axis: 1 2 3 4 5 6 7 8)