Problems of the Week
FSA Countdown Week 4 - M7

1. Marcus and his family are planning a vacation that involves horseback riding. Horseshoe Ranch charges a $12.95 ranch entrance fee plus $14.95 per hour to rent horses for horseback riding. 7.RP.2, 7.RP.2a

Part A: Complete the table to determine the total price for different amounts of riding time.

Number of Hours	1	2	3	4
Total Price ($)				

Part B: Is the total price proportional to the number of hours spent horseback riding? Justify your response.

2. A research ship is following a school of dolphins. The scientists trace the leaps and dives of one particular dolphin and record their observations in a table. The dolphin was first spotted 4 feet below the surface of the water. 7.NS.1

Observation	Action
A	dives 5 feet
B	leaps 14 feet
C	dives 9.5 feet
D	dives 2.5 feet
E	rises 6 feet

Part A: Plot and label a point on the number line to indicate each action of the dolphin. Label the dolphin's starting position as S.
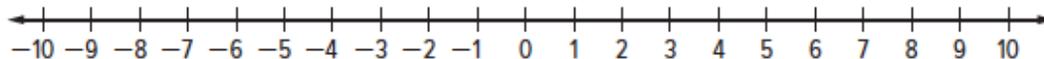
*Part B:* Write an expression illustrating the total vertical distance the dolphin traveled from the spot it was first sighted, according to the observations. Simplify the expression to find the total vertical distance the dolphin traveled.

3.

The table shows the cost to rent a jet ski from two different stores. 7.RP.2, 7.RP.2a

Part A: Graph each relationship to determine whether it is proportional.
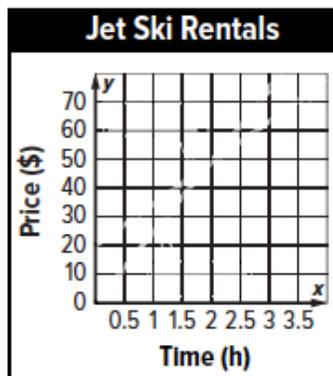
	Prices at Each Store	
Time (h)	Water Fun ($)	Super Ski ($)
0	0	20
1	25	35
2	50	50
3	75	65

Jet Ski Rentals

Part B: Is either relationship proportional? Justify your response.

4.

Pedro and his friends are playing a beanbag tossing game. The diagram shows the game board, and the table shows how the game is scored. Select all of the sets of hits that would result in getting a negative score. 7.NS.1, 7.NS.1a, 7.NS.1d
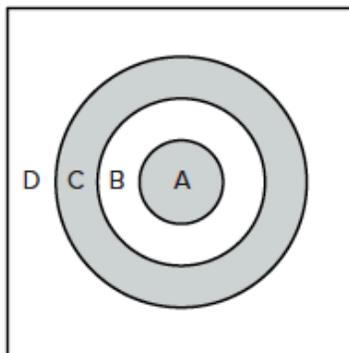
Section	Points
D	−1
C	0
B	$\frac{1}{2}$
A	1.5

☐ 2 hits on D, 3 hits on C, and 1 hit on A

☐ 1 hit on B, 1 hit on A, 2 hits on D, and 4 hits on C

☐ 1 hit on D, 1 hit on A, 3 hits on C, and 1 hit on D

☐ 3 hits on D and 2 hits on A

☐ 5 hits on C and 1 hit on A

☐ 1 hit on B, 1 hit on D, one hit on A, two hits on C, one hit on B, and two hits on D