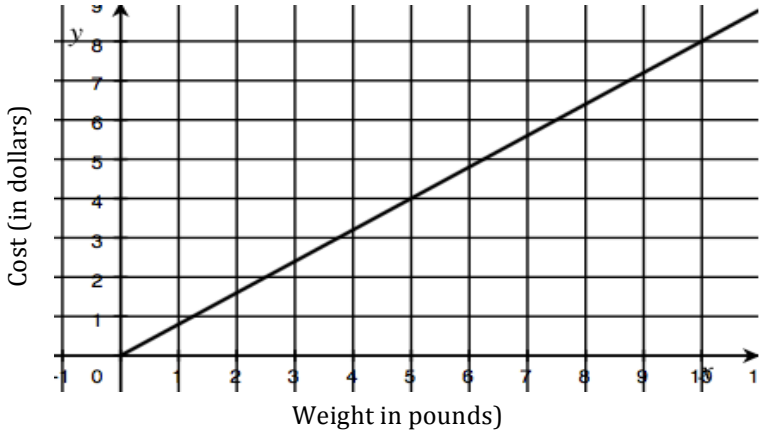
Error Analysis: Preparation for Grade 7 SBAC April 2015

1. INTERPRETING GRAPHS AND UNIT RATES

Rayan was interpreting the graph below that described the cost of bananas at Safeway.



Rayan said that based on this graph, bananas cost $1.25 per pound. Explain what Rayan might have done incorrectly.

2. CALCULATING A RATE

Jenny was interpreting the following information that recorded how fast a sloth traveled:

Distance (in miles)	Time (in minutes)
0.6	15

She was trying to figure out the speed in miles per hour, and thought that the sloth was going 9MPH. Explain what she might done incorrectly. What is the correct rate in miles per hour?

3. PERIMETER V. AREA

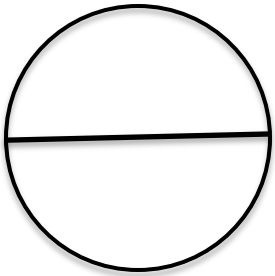
Trevor was examining a rectangle that had a length of 11 inches and a width of 23 inches. He claimed the area was 68 inches. What mistake did he make? What is the correct answer?

4. UNIT CONVERSION

The refrigerator in the back of the classroom is 24 inches tall, 16 inches wide, and 18 inches deep. When asked to calculate the volume, Claire multiplied the three numbers and arrived at 6,912 cubic inches. She then said that the volume in cubic feet was 576 cubic feet. What did she do to arrive at her answers? Are they correct?

5. CIRCUMFERENCE AND AREA

The circumference of a circle is 11π inches. How would you find out the area?



6. SCALE DRAWINGS AND AREA

Max was asked to create a blueprint (or scale drawing) of his room. The actual dimensions of his room are 12 feet by 16 feet. He used the scale factor of $1\ inch = 4\ feet$. He calculated the area of his room as 192 square feet and divided by 4 and proclaimed that his the area of the room on his drawing was 48 square inches. What is the correct answer?

7. NUMBER SENSE

Aidan said that the expression $(7x - 5) - (3x - 2)$ was equivalent to $4x - 7$. What was his error? What is the correct answer?

8. PERCENT CHANGE

The Renegades won 20 games this year. They won 16 games last year. Logan that represented a 20% increase from last year, and Sarah said it was a 25% increase. Who was right? What might the other person had done to get the incorrect answer?

9. UNIT RATE

Ms. Delaney gave her class 12 minutes to read. Ellen read $5\frac{1}{2}$ pages in that time. Sindhu claimed that Ellen would be able to read $\frac{11}{24}$ pages in 1 hour. Sam was sure that Ellen would be able to read 66 pages in an hour, and Owen thought Ellen would read $27\frac{1}{2}$ pages in one hour. Who's right? What mistake did the other two people make?

10 DISCOUNT

Suzanne bought a sweater at the sale price of $25. The original cost of the sweater was $40. James thought she received a 60% discount. Is he correct? Show his steps mathematically. If he's incorrect, identify the correct percent discount.