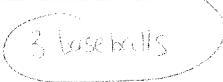Key

1. A jar contains 8 blue marbles, 12 red marbles, and 10 green marbles. What is the probability that a green marble is drawn second, given that a blue marble was drawn first and not replaced?
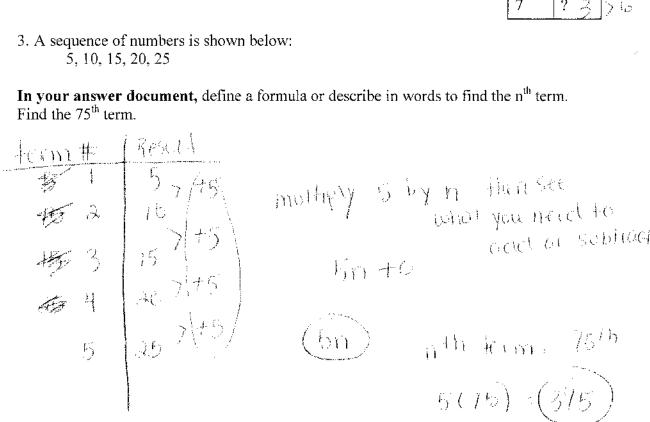
8 + 12 + 10 = 30 total marbles but if blue was drawn first, now there are 29

$$\frac{10 \text{ given}}{29 \text{ total}} \qquad \boxed{\frac{10}{29}}$$

2. The owner of a sporting goods store is following a pattern to arrange baseballs into 7 rows for a wall display. The table shows the number of baseballs in the first four rows of this pattern.

How many baseballs will be in the 7th row?

$\boxed{3 \text{ baseballs}}$

Row	# of BB's
1	24
2	23
3	21
4	18
5	14
6	9
7	? 3

3. A sequence of numbers is shown below:
    5, 10, 15, 20, 25

In your answer document, define a formula or describe in words to find the nth term.
Find the 75th term.

term #	Result
1	5
2	10
3	15
4	20
5	25

multiply 5 by n then see what you need to add or subtract

$5n + 0$

$\boxed{5n}$ nth term. 75th

$5(75) = \boxed{375}$

4. If a car reaches a top speed of 264 mph, then approximately how many feet per second is it traveling?

$$\frac{264\ mi}{1\ h}, \frac{5280\ ft}{1\ mi}, \frac{1\ h}{60\ min}, \frac{1\ min}{60\ sec} = \frac{1393920}{3600}$$

$$= 387.2\ ft/sec$$

can be a fraction

5. Which of the following numbers is rational? (1 point)

A. π   B. 0.131131113...   C. √7   D. 0.33333...

$$\frac{1}{3}$$