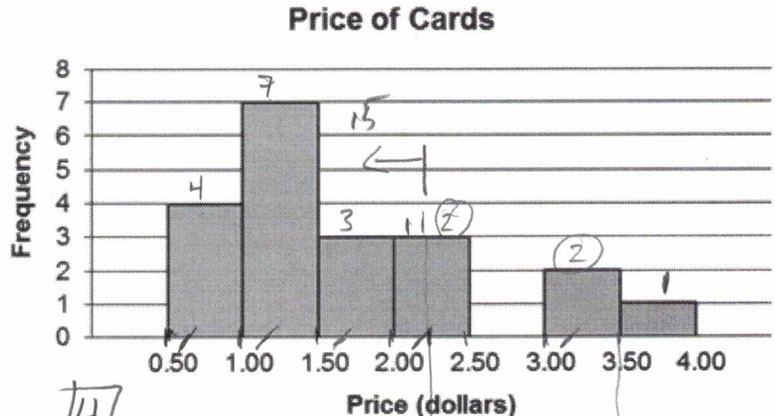
Meet 5 – Event A 2018-19

Questions are worth 2-2-2-4-4 points respectively.
No calculators allowed

4 **1.** The histogram shows the prices of various greeting cards. If 15 of the greeting cards cost \$2.25 or less, how many greeting cards cost more than \$2.25 and less than \$3.50?



$\frac{9}{38}$ **2.** A sock drawer contains 10 black socks, 6 white socks, and 4 blue socks. Hamza reaches in and randomly pulls out 2 socks. What is the probability that both are black? Write your answer as a reduced fraction.

4 mi **3.** Emilio drove to work on Monday at an average speed of 30 miles per hour and arrived 1 minute late. He left at the same time on Tuesday, drove an average speed of 40 miles per hour, and arrived 1 minute early. How many miles does Emilio drive to work each day?

$f(x+1) = \frac{2}{3}x^2 - \frac{2}{3}x$ **4.** The function $f(x)$ is defined as follows:

$$f(x) = \frac{2}{3}x(x-1)(x-2)$$

What is $f(x + 1)$? Write your answer as a simplified polynomial in descending order.

16 **5.** The addition problem to the right is not correct if the numbers are interpreted as base 10 numbers. In what number base is the problem correct?

$$\begin{array}{r} 56 \\ 77 \\ 84 \\ +\ 38 \\ \hline 189 \end{array}$$

Name________________________________ School________________________________