Bell Work: A-CED.1.2

At the school bookstore, a pencil costs 25¢, a notebook costs \$1.75, and a piece of graph paper costs 5¢. Which formula below could be used to determine the total cost c, in cents, of purchasing p pencils, n notebooks, and g pieces of graph paper?

A. $c = 25p + 1.75n + 5g$
B. $c = 25p + 175n + 5g$
C. $c = 0.25p + 1.75n + 0.05g$
D. $c = 0.25p + 1.75n + 0.5g$

1. Complete the **two-way frequency table**.

	Vanilla	Chocolate	Total
Male students	6	5	11
Female students	6	10	16
Total	12	15	27

Frequencies

How many total students took the survey? 27

How many female students are in the class? 16

How many male students are in the class? 11

Do the female and male totals represent joint or marginal frequencies? marginal

How many students preferred vanilla? 12

How many students preferred chocolate? 15

(Joint Frequency - numbers in the middle of the chart, not compared to the totals.)

(Marginal Frequency - totalf of either a row or a column.

Now calculate the **relative frequencies** of the entries in the table:

A. Use the **grand total** as the denominator.

	Vanilla	Chocolate	Total
Male students	0.22	0.19	0.41
Female students	0.22	0.37	0.59
Total	0.44	0.56	1.00

$\frac{6}{27} = 0.22$ $\frac{5}{27} = 0.185$

B. Use the **column totals** as the denominators.

	Vanilla	Chocolate	Total
Male students	0.5	0.33	0.41
Female students	0.5	0.67	0.59
Total	1.00	1.00	1.00

12 15 27

C. Use the **row totals** as the denominators.

	Vanilla	Chocolate	Total
Male students	.55	.45	1.00
Female students	.375	625	1.00
Total	0.44	0.56	1.00

/11
/16
/27

$\frac{6}{11} = .545$

$\frac{6}{16} = 0.375 \rightarrow 0.4 \rightarrow 0.38$

$\frac{10}{16} = 0.625 \rightarrow 0.6 \rightarrow \frac{0.63}{1.01}$

Ticket out the Door

Is there a relationship between gender and ice cream flavor preference? Support your answer.