

BUSI 101B: Percent Change

1. Last year the Westminster Gala event had 1,535 attendees. This year 1,610 people attended the gala. What is the percent change in attendance? *Please show your answer as a percentage rounded to two decimal places.*

$$P1 = 1535, P2 = 1610$$

$$\% \text{ Change} = (P2 - P1) / P1 * 100 = (1,610 - 1,535) / 1,535 * 100 = 0.04886 * 100 = 4.89\%$$

2. Ron Weasley sells homemade holiday sweaters made by his mother. Last Christmas he sold 37 sweaters and this year he sold 32. What is the percent change in sweater sales from last year to this year? *Please show your answer as a percentage rounded to two decimal places.*

$$P1 = 37, P2 = 32$$

$$\% \text{ Change} = (P2 - P1) / P1 * 100 = (32 - 37) / 37 * 100 = -0.13514 * 100 = -13.51\%$$

3. Yesterday they sold 78 lattes at the Griffin's Roost and today they sold 89 of them. What is the percent change in sales from yesterday to today? *Please show your answer as a percentage rounded to two decimal places.*

$$P1 = 78, P2 = 89$$

$$\% \text{ Change} = (P2 - P1) / P1 * 100 = (89 - 78) / 78 * 100 = 0.14103 * 100 = 14.10\%$$

4. Each year a number of local children audition to be in Ballet West's performance of *The Nutcracker*. Last season there were 22 ballerinas auditioning to be the Sugar Plum Fairy. This season there were 48 ballerinas who auditioned for the same part. What is the percent change from last season? *Please show your answer as a percentage rounded to two decimal places.*

$$P1 = 22, P2 = 48$$

$$\% \text{ Change} = (P2 - P1) / P1 * 100 = (48 - 22) / 22 * 100 = 1.18182 * 100 = 118.18\%$$

5. After an increase of 40%, the number of items purchased this year by a shopper on Black Friday was 112. How many items did the shopper purchase last Black Friday? *Please show your answer as a percentage rounded to two decimal places.*

$$P2 = 112, \% \text{ Change} = 40\%$$

$$(P2 - P1) / P1 = \% \text{ Change}$$

Substitute known values

$$(112 - P1) / P1 = 0.40$$

$$112 - P1 = 0.40 P1$$

$$112 = 1.40 P1$$

$$112 / 1.40 = 80 = P1$$