

## Appendix F: Formulas

The formulas below are ones used this year and may be used again the following years.

### Percent of an increase or decrease:

<ul style="list-style-type: none"> <li>• New number</li> <li>• -</li> <li>• old number</li> <li>• /</li> <li>• old number</li> <li>• x</li> <li>• 100</li> <li>• =</li> <li>• Answer</li> </ul>	<p>Excel Formula: =sum((a2-a1)/a1)</p> <p>Either add *100 to the end or format the column or cell to turn the number into a percentage.</p>
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### Weighted average (used for adding two web site views):

- (1<sup>st</sup> site) # views x avg. time viewed (or avg. % viewed)
- +
- (2<sup>nd</sup> site) # views x avg. time viewed (or avg. % viewed)
- /
- Total # of views
- =
- Answer

### Shifting collection:

- Add up the total number of inches per section (e.g. the F's had 1,572" of books)
- Divide by the number of inches to use on shelf (e.g. 26")
- This gives us the total number of shelves needed per call number.
- We then count the number of shelves we have available. The end result knows either how many empty shelves we can disperse throughout the collection or knowing how many extra shelves we need. See formula below:
  
- Inches of books per call number
- /
- Total inches per shelf
- =
- Total shelves needed for books
- Total shelves available
- -
- Total shelves needed
- =
- # of empty shelves to disperse

### Attendance of students using enrollment as a factor:

- Divide the #patrons entering the library by the #people enrolled = % increase or decrease of library activity.