**Sports car** probability question. All probabilities add up to 1.00. Subtract to find missing probability.

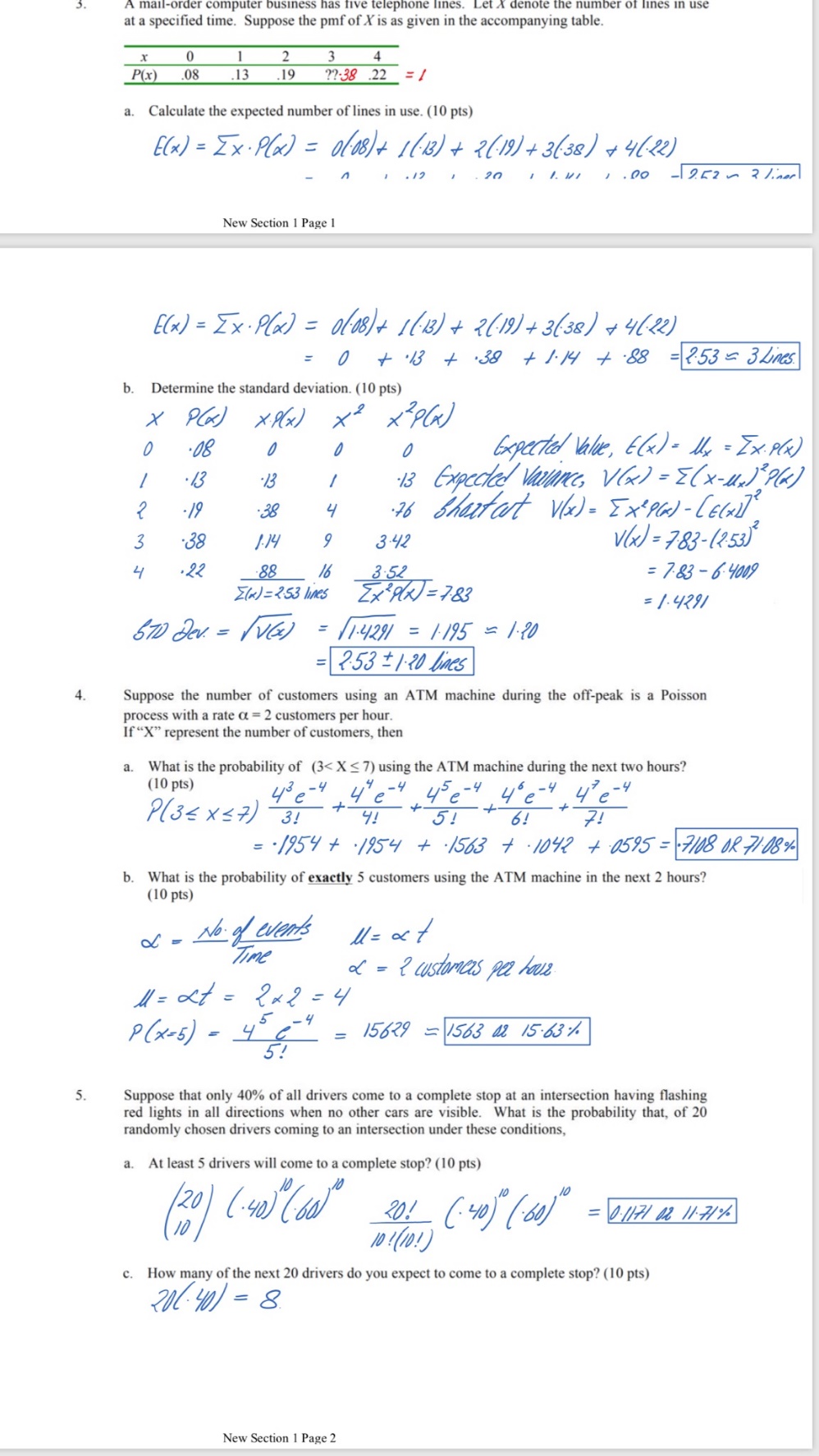
Equation is P(A u B) = P(A) + P(B) – P(A n B) = .52 = 52%

**P(A n B)** = point of intersection of A and B

Probability of red manual car = P(R / M) = = .327 = 33%

**Women in college. Find probability of women in college**

P(F n C)/P(C) = **Part B. P(attended college) Denominator from Part A**

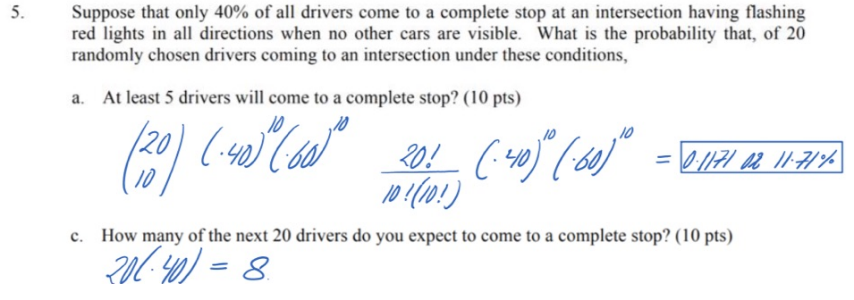


For P(3 <= x <= 7) = )/3!)) + ()) + …

. To Find exactly x amount of customers, just do one term of function from part a

**5**Equation for drivers at stop light

n = # of trials p = probability of success q = |1-p| x =number of drivers =>

40% of drivers come to a stop. Of 20 randomly chosen drivers, what is probability that:

* **Shortcut for standard deviation**
* **Take square root of this :**
* **Variance , S2 =**  Variance for population :
* Chebyshev’s Rule
* Minimal Spread =
* K = no. of + and – std. dev from the mean
* **Mean or** 
  + 1000,8,7,9,4 =>
* **Median** (if n is odd, then is the middle number)
  + =
  + 4,7,8,9,1000
    - (8+9) / 2 = 8.5

When you have normal distribution, then=

When skewed to right (Mean greater than median)

* "Positively skewed"

When skewed to left (Mean less than median)

* "Negatively skewed"
* **How to find any percentile**
* Find 38th percentile, n = 11.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 16.4 | 16.4 | 28.2 | 31.5 | 34.1 | 36.6 | 40.4 | 45 | 76.7 | 77.7 | 109.9 |

* P% = (P/100)\*n = (.38)(11)
* = 4.18
* Index(4) + .18(Index(4+1)-Index(4))