Answer on Question #84228 – Math – Statistics and Probability

Can anyone please help me to solve these problems with explanation as possible.

Gender	$age < 25$	$25 \leq age < 45$	$age \geq 45$	Total
Male	132	296	206	634
Female	118	152	315	585
Total	250	448	521	1219

Question

1) What is the probability of selecting a female employee and under 25 years old?
(0.1095) (0.4500) (0.5882)

Solution

$$p = \frac{n(Female \ and \ under \ 25 \ years \ old)}{n(Total)} = \frac{118}{1219} = 0.0968.$$

Answer: 0.0968.

Question

2) What is the probability of selecting a female or 25 to less than 45 years old?
(0.6526) (0.8310) (0.0896)

Solution

$$p = \frac{n(Female) + n(25 \ to \ less \ than \ 45 \ years \ old) - n(Female \ and \ 25 \ to \ less \ than \ 45 \ years \ old)}{n(Total)} = \frac{585 + 448 - 152}{1219} =$$
$$= 0.7227.$$

Answer: 0.7227.