MA111 — Homework #8 Short Solutions

Page 169   11. $3301.89

      12. $2.33

      13. $1.69

      15. (a) 7%

           (b) 4130

           (c) 33.7%

           (d) 20%

      17. 22.2%

      18. (a) 62.5%

           (b) 70%

           (c) 46.4%

           (d) 81.25%

           (e) 37.5%

           (f) 75%

Page 44   1. The graphic that accompanies the article has the data needed. In August there were 91 trainees, in September there were 108, and in October there were 118. Thus, the percent increase from August to September is $\frac{108-91}{91} \times 100 = 18.7\%$, and the percent increase from September to October is $\frac{118-108}{108} \times 100 = 9.3\%$.

      2. The key to the graphic states that the longer bar (lighter shade) represents the total number of trainee positions available and the shorter bar (darker shade) represents the number of trainees employed. The percent of available positions filled in August is $\frac{91}{141} \times 100 = 65\%$ (when rounded. Likewise, 76% is the percent of available positions filled in September, and 80% is the percent of available positions filled in October.

      3. This statement is not supported by the data provided.

      The number of caseworker trainees increased from 91 in August to 118 in October. Consequently, the increase in the number of caseworker trainees from August to October is $118 - 91 = 27$.

      The percent increase in the number of caseworker positions filled from August to October is $\frac{118-91}{91} \times 100 = 29.7\%$.

      The increase in the percent of caseworker positions filled from August to October is $80\% - 65\% = 15\%$.

      The percent increase in the percent of caseworker positions filled from August to October is $\frac{80\%-65\%}{65\%} \times 100 = 23.1\%$.