Calculating Piecework

1. Jared is a freelance writer for the local newspaper. He is paid according to the list below.

   First 150 articles….$100 each
   Up to 200 articles....$125 for each article beyond 150
   Over 200 articles….$150 for each article beyond 200

   a.   How much would he earn if he wrote 310 articles?

   A total of 310 is more than 150. The first 150 articles will earn
   $100/article.
   On the next 50, (200-150), he will earn $125/article.
   On the next 110 (310-200), he will earn $150/article.

   piecework = (150 × $100) + (50 × $125) + (110 × $150)
   *   = $15 000 + $6250 + $16 500*
   *   = $37 750*

   Jared would earn $37 750 for 310 articles.

2. Levi delivers newspapers in his neighbourhood. He is paid piecework based on the number of papers he delivers.

   For the first 25 papers delivered, he earns $0.25/paper
   For the next 10 papers delivered, he earns $0.35/paper
   Over 35 papers delivered, he earns $0.50/paper

   a.   What is the least number of papers he needs to deliver to earn the maximum pay of $0.50/paper?

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   b.   If Levi delivers 40 papers, how much will he earn?

   A delivery of 40 papers will earn him pay at each level.
   25 earn $0.25, 10 earn $0.35, and 5 earn $0.50
   piecework = (25 × $0.25) + (10 × $0.35) + (5 ×$0.50)
   *   = $6.25 + $3.50 + $2.50*
   *   = $12.25*

   Levi will earn $12.25.