

Name:

Due Friday, September 26

Homework 4

Do the following problems on a separate sheet of paper.

Additional practice problems:

3A: 67-70, 73-74, 77-78, 81-82, 87-92

1. Brother Liebowitz has lived in a monastery in Holmpatrick, Ireland for the past 10 years. He has lately grown nervous about the frequency of Viking raids, and is looking through the monastery's records for information.
 - (a) In 790 there were 4 Viking raids on the monastery. In 791 there were 7. What was the absolute and relative change from 790 and 791?
 - (b) In 793 there were 50% more raids than in 790. How many were there? What was the absolute change?
 - (c) In 798 there were 150% more raids than in 788, the year Brother Liebowitz arrived. If there were 15 raids in 798, how many were there in 788?
2. The monastery is looking at investing in some better defenses. It will cost 10 cows to hire guards, 16 cows to build better walls, and 40 cows to simply give up, move to Belgium, and brew beer.
 - (a) How much more (both absolute and relative) would it cost to build better walls than to hire guards?
 - (b) How much less (both absolute and relative) would it cost to hire guards than to move to Belgium?
 - (c) It costs 300% more to move to Belgium than to build a moat. How much does it cost to build a moat?
 - (d) The abbot believes that because of plague and famine, the cost of hiring guards will increase by 20% next year, and 25% the following year. How many cows will the monastery have to spend to hire guards in two years? What is the relative change from now to two years from now?
3. Olaf "monksplitter" has spent his life raiding monasteries, but wants a better life for his son Sven, so he is going to use his loot to set up a college fund and send Sven to Viking Tech. The First Bank of Denmark will offer 5% interest per year. If he invests 10 talents of gold now, how much will he have in 8 years?