Hi, My Name Is: \[ \text{Sols} \]  
Math 34:03: \[ \text{Wed. March 23, 2016} \]  
Quiz 8 (15 points)

Directions: Please answer the following questions and make sure your answer are legible. If you don’t show work and/or I can’t follow it, I won’t give partial credit. You may use a calculator (not the calculator function on other technology) and the Formula Sheet that I provide you, nothing else. Good Luck.

1. (4 points) You have worked at a company for 3 years and 1 month, and are leaving for a new job. Your retirement account balance is $6,886.60, of which $2,582.48 come from the company’s contributions.

(a) If your company uses a 5-year cliff vesting schedule, how much of your account balance do you get to keep?

(b) If your company uses the step vesting schedule below, how much of your account balance do you get to keep?

<table>
<thead>
<tr>
<th>Years of Service Completed</th>
<th>Vesting Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 2 years</td>
<td>0%</td>
</tr>
<tr>
<td>2 – 3 years</td>
<td>15%</td>
</tr>
<tr>
<td>3 – 4 years</td>
<td>35%</td>
</tr>
<tr>
<td>4 – 5 years</td>
<td>60%</td>
</tr>
<tr>
<td>5+ years</td>
<td>100%</td>
</tr>
</tbody>
</table>

![Image with calculations]

2. (5 points) Blanche just came into $2,850 and she’s decided she wants to save it in a Traditional IRA. She assumes the account will earn 7\(\frac{1}{4}\)%, and she plans to leave the money in the account for 30 years. Blanche assumes her overall tax rate will be 27% when she retires (in 30 years).

(a) How much will be in the account in 30 years?

(b) How much will Blanche pay in taxes when she withdraws the money in 30 years?

![Image with calculations]

Turn Over
3. (1 point) When should you choose a Traditional IRA over a Roth IRA?

Trad IRA: save on taxes now (potentially) pay taxes later so choose it if you expect/know you're in a higher tax bracket now then you will be in Retirement Later.

4. (5 points) Rose is 24 years old and plans to retire in 43 years (when she's 67). She's determined she needs $1,000,000 in her DC retirement account when she retires, and she assumes her account will earn 6.3% over the next 43 years. This can be achieved with monthly payments of $377.47 to the retirement account.

Rose makes $51,000 a year at a company that offers a 70% match on contributions to the retirement account up to 4% of salary.

How much does Rose need to contribute to her account each month?

\[ \text{PMT} = 937.47 \]

multiplier: 100% Rose + 70% Match = 1.70

\[ \text{Rose Contrib} = \frac{937.47}{1.70} = 5220.04 \]

Check it over max.

Max: 4% of (monthly) salary

\[ .04 \times \left( \frac{51,000}{12} \right) \]

\[ = .04 \times 4250 \]

\[ = 170 \]

*Sadly Rose is over the Max* May

\[ \text{w. Rose Contrib} = \text{PMT} - \text{company Max} \]

\[ = 377.47 - .70(170) \]

\[ = 377.47 - 119 \]

\[ = 258.47 \text{ Rose's Contrib} \]