

MTH 110
Quiz 1
Spring 2018

Be neat and organized. Clearly indicate your answers.
20 points possible.

You may use a calculator. No cell phones.

1. (3 pts.) Identify an apparent pattern in the sequence of numbers. Use this pattern to fill in the blanks with the numbers that complete the sequence.

3 9 15 21 _____ _____ _____ _____ 51

2. (3 pts.) Identify an apparent pattern in the sequence of numbers. Use this pattern to fill in the blanks with the numbers that complete the sequence.

7 10 15 22 _____ _____ _____ _____ 87

3. (1 pt.) What is 6% of 300?

4. (2 pts.) Express $\frac{6}{32}$ as a percent.

5. (2 pts.) 54 is 60% of what?

6. (2 pts.) An exercise machine with an original price of \$950 is on sale at 14% off. What is the exercise machine's sale price?

7. (4 pts.) In this problem, base the taxable income on the greater of a standard deduction or an itemized deduction.

Suppose a taxpayer earned wages of \$97,300, received \$1540 in interest from a savings account, and contributed \$1800 to a traditional IRA tax-deferred retirement plan. The taxpayer is entitled to a personal exemption of \$3800 and a standard deduction of \$5950. The taxpayer paid interest of \$7400 on a home mortgage, contributed \$850 to charity, and paid \$1820 in state taxes.

(a) Find the gross income.

(b) Find the adjusted gross income.

(c) Find the taxable income.

8. (3 pts.) Use the 2012 marginal tax rates in the accompanying table to compute the tax owed by this taxpayer.

a single taxpayer with a taxable income of \$55,000

Calculating Income Tax:

1. Determine your adjusted gross income:

$$\text{Adjusted gross income} = \text{Gross income} - \text{Adjustments.}$$

All income for the year, including wages, tips, earnings from investments, and unemployment compensation

Includes payments to tax-deferred savings plans

2. Determine your taxable income:

$$\text{Taxable income} = \text{Adjusted gross income} - (\text{Exemptions} + \text{Deductions}).$$

A fixed amount for yourself (\$3800 in 2012) and the same amount for each dependent

Choose the greater of a standard deduction or an itemized deduction, which includes interest on home mortgages, state income taxes, property taxes, charitable contributions, and medical expenses exceeding 7.5% of adjusted gross income.

3. Determine the income tax:

$$\text{Income tax} = \text{Tax computation} - \text{Tax credits.}$$

Use your taxable income and tax rates for your filing status (single, married, etc.) to determine this amount.

May include up to \$1000 per child, the cost of child care so a parent can work, and adoption credits for qualified expenses.

2012 Marginal Tax Rates, Standard Deductions, and Exemptions for Textbook Homework Problems

	Unmarried, divorced, or legally separated	Married and each partner files a separate tax return	Married and both partners file a single tax return	Unmarried and paying more than half the cost of supporting a child or parent
Tax Rate	Single	Married Filing Separately	Married Filing Jointly	Head of Household
10%	up to \$8700	up to \$8700	up to \$17,400	up to \$12,400
15%	\$8701 to \$35,350	\$8701 to \$35,350	\$17,401 to \$70,700	\$12,401 to \$47,350
25%	\$35,351 to \$85,650	\$35,351 to \$71,350	\$70,701 to \$142,700	\$47,351 to \$122,300
28%	\$85,651 to \$178,650	\$71,351 to \$108,725	\$142,701 to \$217,450	\$122,301 to \$198,050
33%	\$178,651 to \$388,350	\$108,726 to \$194,175	\$217,451 to \$388,350	\$198,051 to \$388,350
35%	more than \$388,350	more than \$194,175	more than \$388,350	more than \$388,350
Standard Deduction	\$5950	\$5950	\$11,900	\$8700
Exemptions (per person)	\$3800	\$3800	\$3800	\$3800