

Name: _____ Class: _____ Date: _____

Financial Algebra Review Topics WS #1 (Chapter 6 and 7)

True/False

Indicate whether the statement is true or false.

- Employers are usually charged a flat fee to place classified ads in the newspaper.
- Social Security tax is paid on all your income while Medicare tax is paid up to the maximum taxable income amount.
- Blinko's charges \$24.99 to print 100 top-quality single-page resumes. Each additional 50 copies cost \$10. This cost, $r(x)$ written as a piecewise function is:
$$r(x) \begin{cases} 24.99 & \text{when } x \text{ is an integer and } x \leq 2 \\ 24.99 + 10(x - 2) & \text{when } x \text{ is an integer and } x > 2 \end{cases}$$
- The purpose of worker's compensation is to offer benefits to eligible employees that have become unemployed.
- Bruce is paid semimonthly so he receives 24 paychecks a year.
- McKenzie sells textbooks. She receives 7% on her first \$1,000 in sales and 15% on the balance of her sales. If her sales in one month were \$14,500, she would earn \$2,025 in commission.
- Jim was offered a job as a computer programmer making 65K per year. Another company offered Jim a position earning \$1,200 a week. The job with the 65K salary pays more.
- Royalty is a percentage paid on the money earned from sales on items such as tickets, books, artwork, and music CDs.
- Cherie accepted a job through an employment agency. The job pays \$1,100 a week. The agency charges 30% of her first 4 weeks pay. To find the amount she owes the agency, she should multiply her first four weeks' salary by 0.03.
- The filing status of *head of household* is for married taxpayers who have dependents.
- Schedule A can be filed with any tax form to itemize deductions for items such as property taxes and charitable contributions paid.
- A W-2 is an income statement that lists any money earned from interest.
- An income tax filer who is single or married filing jointly, with no dependents and income less than \$100,000, may be able to file a 1040EZ form.
- The long form, also called a 1040, is the only form that a filer can use if they have interest income from dividends, alimony, or prize money.
- In a progressive tax system, taxes decrease as income increases.
- An exemption is an allowable amount that reduces a person's taxable income. Examples of an exemption are the taxpayer themselves and their dependents.
- Income tax is paid on earned income such as wages and tips. Income tax is also paid on unearned income such as interest, dividends, rental income, capital gains, and winnings.
- Tax tables list taxable income in intervals.

28. Michelle receives 32K per year as an assistant fast food manager. Her benefits include health insurance, paid holidays, retirement contributions, and a 2-week paid vacation each year. Because she wears a uniform, Michelle calculates that she saves \$2,500 on clothing costs per year. She constructed this table to show the value of each benefit. What is her annual salary, including benefits?

Benefit	Value
Health Insurance	\$8,250
Paid Holidays	\$920
Retirement Contributions	\$4,500
Paid Vacation	\$1,230
Uniform Supplied	\$2,500

- a. \$32,000
 b. \$42,400
 c. \$4,690
 d. \$49,400
29. Jennifer’s employer withholds \$1,500 of her pre-tax wages in a plan that Jennifer can use to pay for unreimbursed medical expenses, childcare, and parental care. What is this plan called?
- a. individual retirement account
 b. flexible spending account
 c. deferred compensation plan
 d. medical spending account
30. Lynn is a single mother with two children. She qualifies to file as head of household. Her total income before deductions was \$38,900 last year. Her total deductions were \$11,450. Her employer withheld \$3,150 from her pay for tax. Use the tax table below. How much more will Lynn owe in taxes?

If line 43 (taxable income) is —		And you are —			
At least	But less than	Single	Married filing jointly *	Married filing separately	Head of a household
27,000					
27,000	27,050	3,653	3,251	3,653	3,481
27,050	27,100	3,660	3,259	3,660	3,489
27,100	27,150	3,668	3,266	3,668	3,496
27,150	27,200	3,675	3,274	3,675	3,504
27,200	27,250	3,683	3,281	3,683	3,511
27,250	27,300	3,690	3,289	3,690	3,519
27,300	27,350	3,698	3,296	3,698	3,526
27,350	27,400	3,705	3,304	3,705	3,534
27,400	27,450	3,713	3,311	3,713	3,541
27,450	27,500	3,720	3,319	3,720	3,549
27,500	27,550	3,728	3,326	3,728	3,556
27,550	27,600	3,735	3,334	3,735	3,564
27,600	27,650	3,743	3,341	3,743	3,571
27,650	27,700	3,750	3,349	3,750	3,579
27,700	27,750	3,758	3,356	3,758	3,586
27,750	27,800	3,765	3,364	3,765	3,594
27,800	27,850	3,773	3,371	3,773	3,601
27,850	27,900	3,780	3,379	3,780	3,609
27,900	27,950	3,788	3,386	3,788	3,616
27,950	28,000	3,795	3,394	3,795	3,624

- a. \$570
 b. \$563
 c. \$407
 d. \$399

35. Conrad and Jill have a taxable income of \$63,670. They discovered that they are able to receive a \$1,500 tax credit for purchasing an energy efficient furnace. How will this tax credit affect their taxes?
 - a. The tax credit will increase their taxable income by \$1,500.
 - b. The tax credit will reduce their taxable income by \$1,500.
 - c. The tax credit is added to the tax owed, not the taxable income.
 - d. The tax credit is subtracted from the tax owed, not taxable income.
36. Dawn is verifying the accuracy of her paycheck. She earns \$12 an hour and works 40 hours each week. Her biweekly deductions are Social Security 6.2%, Medicare 1.45%, federal withholding tax \$73.25, state withholding tax \$22.50, and health insurance \$37.47. What is her net pay if she is paid biweekly?
 - a. \$753.34
 - b. \$779.44
 - c. \$784.34
 - d. \$826.78
37. Which statement is NOT true about the differences between the income on a W-2 and that on a 1099 form?
 - a. 1099 income is untaxed where the income on a W-2 is already taxed.
 - b. A 1099 form is for income other than wages.
 - c. The income on a 1099 is money from interest, royalties, rents, and more.
 - d. The 1099 income is not reported to the IRS while the W-2 income is reported.

Short Answer

38. Marcus earned \$54,000 last year when the Social Security tax was 6.2% of income up to \$94,200. His Medicare tax was 1.45%. How much did he pay in Social Security and Medicare taxes last year?
39. Maryanne began a job that gives her 3 days of vacation each year she is employed, up to a maximum of 24 days of vacation time. How many years will she be at the company before she reaches the maximum amount of vacation time?
40. Mrs. Brown has been working in a factory for 28 years. She is preparing to retire. Her pension is calculated on the average of her last 3 years' salaries where she earned \$38,592, \$37,590, and \$37,010. Her employer will give her 1.8% of that average for each year she worked. Calculate her pension.
41. Juanita gets paid for every apron she embroiders. Last week she earned \$185. If she earns \$2.50 for each embroidered piece, how many aprons did she embroider last week?
42. Singh works at a restaurant where he is paid by the hour plus time-and-a-half for his hours over 40. Last week he worked 3 hours overtime and his gross pay was \$380.48. What is his hourly wage?
43. If Leona receives her paycheck biweekly, how many checks does she receive in a year?
44. Nancy was laid off and applied for unemployment benefits in July. In her state, the weekly unemployment benefit is 55% of the 26-week average of the two highest-salaried quarters of the year leading to her application. In April, May, and June, Nancy earned a total of \$13,500. In January, February, and March her total income was \$12,775. What will Nancy's weekly benefits be?
45. Emily wants to have her resume printed. The printing company charges \$24.50 for the first 100 resumes, and then a flat rate for each additional 100 resumes. Emily pays \$48.50 for 300 resumes. How much is the flat rate after the first 100 resumes are purchased?

46. Lisa is a single taxpayer whose total income before deductions is \$57,392. She was able to reduce her total income by \$9,347 by filing Schedule A. Use the tax rate schedule below. How much did she save using Schedule A?

Schedule X— If your filing status is Single

If your taxable income is:		The tax is:	
Over—	But not over—		of the amount over—
\$0	\$8,025	----- 10%	\$0
8,025	32,550	\$802.50 + 15%	8,025
32,550	78,850	4,481.25 + 25%	32,550
78,850	164,550	16,056.25 + 28%	78,850
164,550	357,700	40,052.25 + 33%	164,550
357,700	-----	103,791.75 + 35%	357,700

47. What is the difference between a tax credit and a tax deduction?
48. Chris' taxable income is \$60,709. She is married, filing jointly. What is her tax?

If line 43 (taxable income) is—		And you are —			
At least	But less than	Single	Married filing jointly *	Married filing separately	Head of a household
Your tax is —					
60,000					
60,000	60,050	11,350	8,201	11,350	10,069
60,050	60,100	11,363	8,209	11,363	10,081
60,100	60,150	11,375	8,216	11,375	10,094
60,150	60,200	11,388	8,224	11,388	10,106
60,200	60,250	11,400	8,231	11,400	10,119
60,250	60,300	11,413	8,239	11,413	10,131
60,300	60,350	11,425	8,246	11,425	10,144
60,350	60,400	11,438	8,254	11,438	10,156
60,400	60,450	11,450	8,261	11,450	10,169
60,450	60,500	11,463	8,269	11,463	10,181
60,500	60,550	11,475	8,276	11,475	10,194
60,550	60,600	11,488	8,284	11,488	10,206
60,600	60,650	11,500	8,291	11,500	10,219
60,650	60,700	11,513	8,299	11,513	10,231
60,700	60,750	11,525	8,306	11,525	10,244
60,750	60,800	11,538	8,314	11,538	10,256
60,800	60,850	11,550	8,321	11,550	10,269
60,850	60,900	11,563	8,329	11,563	10,281
60,900	60,950	11,575	8,336	11,575	10,294
60,950	61,000	11,588	8,344	11,588	10,306

49. What is the term for a Wage and Tax statement and what is its purpose?
50. Kathy and Jeff Miller have a combined income of \$93,366. They have 1099 forms which report \$1,200 in interest. They also have \$4,922 income from rental property. They are able to reduce their income by \$3,500. What is their adjusted gross income?

51. Abraham is a single taxpayer with no dependents. He received \$297 in bank interest and \$1,500 for a educational expenses deduction. His charitable contributions were \$2,000.

Use the information to complete the table below: Wages, tips, and other compensation: \$47,513; Social Security Wages: \$47,513; Medicare wages: \$47,513; Federal tax withheld: \$4,325; State tax withheld: \$2,790. Assume \$3,500 per exemption and use the tax rate for the income interval for \$32,550 to \$78,850 of \$4,481.25 + 25% for taxable income over \$32,550.

Total itemized deductions	\$
Interest	\$
Adjusted gross income	\$
Taxable income	\$
Tax due	\$
Tax owed	\$

52. Nancy does her taxes herself. She filled out this portion of Schedule A below to deduct her mortgage interest of \$7,310, her real estate taxes of \$3,988, and her state income taxes of \$4,080. What error did Nancy make?

Taxes You Paid (See page A-2.)	5	State and local (check only one box):	5	\$4,080 00	9	\$8,068 00
	a	<input checked="" type="checkbox"/> Income taxes, or				
	b	<input type="checkbox"/> General sales taxes				
	6	Real estate taxes (see page A-5)	6	\$3,988 00		
	7	Personal property taxes	7			
	8	Other taxes. List type and amount	8			
	9	Add lines 5 through 8	9			
Interest You Paid (See page A-5.)	10	Home mortgage interest and points reported to you on Form 1098	10	\$7,310 00	15	\$15,378 00
	11	Home mortgage interest not reported to you on Form 1098. If paid to the person from whom you bought the home, see page A-6 and show that person's name, identifying no., and address				
	Note. Personal interest is not deductible.	11				
	12	Points not reported to you on Form 1098. See page A-6 for special rules	12			
	13	Qualified mortgage insurance premiums (see page A-6)	13			
	14	Investment interest. Attach Form 4952 if required. (See page A-6.)	14			
	15	Add lines 10 through 14	15			

53. Maria and Juan are married, filing jointly. Their taxable income is \$154,849. Use the table below to write an equation to determine their tax. Then calculate their tax.

Schedule Y-1— If your filing status is Married filing jointly or Qualifying widow(er)

If your taxable income is:		The tax is:	
Over—	But not over—		of the amount over—
\$0	\$16,050 10%	\$0
16,050	65,100	\$1,605.00 + 15%	16,050
65,100	131,450	8,962.50 + 25%	65,100
131,450	200,300	25,550.00 + 28%	131,450
200,300	357,700	44,828.00 + 33%	200,300
357,700	96,770.00 + 35%	357,700

54. What word is synonymous for take-home pay?

55. A single mother who files head of household pays a tax of \$10,881. Use the table to find her taxable income interval.

If line 43 (taxable income) is —		And you are —			
At least	But less than	Single	Married filing jointly *	Married filing separately	Head of a household
Your tax is —					
63,000					
63,000	63,050	12,100	8,651	12,100	10,819
63,050	63,100	12,113	8,659	12,113	10,831
63,100	63,150	12,125	8,666	12,125	10,844
63,150	63,200	12,138	8,674	12,138	10,856
63,200	63,250	12,150	8,681	12,150	10,869
63,250	63,300	12,163	8,689	12,163	10,881
63,300	63,350	12,175	8,696	12,175	10,894
63,350	63,400	12,188	8,704	12,188	10,906
63,400	63,450	12,200	8,711	12,200	10,919
63,450	63,500	12,213	8,719	12,213	10,931
63,500	63,550	12,225	8,726	12,225	10,944
63,550	63,600	12,238	8,734	12,238	10,956
63,600	63,650	12,250	8,741	12,250	10,969
63,650	63,700	12,263	8,749	12,263	10,981
63,700	63,750	12,275	8,756	12,275	10,994
63,750	63,800	12,288	8,764	12,288	11,006
63,800	63,850	12,300	8,771	12,300	11,019
63,850	63,900	12,313	8,779	12,313	11,031
63,900	63,950	12,325	8,786	12,325	11,044
63,950	64,000	12,338	8,794	12,338	11,056

Financial Algebra Review Topics WS #1 (Chapter 6 and 7) Answer Section

TRUE/FALSE

1. ANS: F
Employers are usually charged per line of text for classified ads.
2. ANS: F
It is the opposite; Medicare tax is paid on all your income while Social Security tax is paid up to the maximum taxable income amount.
3. ANS: T
4. ANS: F
Worker's compensation pays benefits to injured workers.
5. ANS: T
True; semimonthly is 2 checks a month for 12 months.
6. ANS: F
 $0.07 \times 1,000 = \$70$; $0.15 \times (14,500 - 1,000) = 2,025$;
She would earn $2,025 + 70 = \$2,095$ in commission.
7. ANS: T
 $65,000 \div 52 = 1,250 > 1,200$
8. ANS: T
9. ANS: F
She should multiply the first four weeks' salary by 0.3 not 0.03.
10. ANS: F
Head of household is for single filers with dependents.
11. ANS: F
Schedule A can only be filed with form 1040.
12. ANS: F
W-2 is a Wage and Tax Statement and gives information on income and withholding amounts.
13. ANS: T
14. ANS: T
15. ANS: F
In a progress tax system, taxes increase as income increases.
16. ANS: T
17. ANS: T
18. ANS: T
19. ANS: T

MULTIPLE CHOICE

20. ANS: C
 $\$62,500$; $0.62x = 3,875$; $x = 62,500$
21. ANS: D
Medicare benefits are available to workers who pay into the program either when they retire or if they become disabled.

22. ANS: B
 $\$7,305.50; (119,000 \times 0.0145) + (90,000 \times 0.062) = 7,305.50$
23. ANS: A
 $\$118.50; (3.3 + 2.9 + 4.0 + 3.5 + 2.1) \times 7.50$
24. ANS: D
 $47 \times 24 = 1,128; 1,128 \div 0.15x; x = \$7,520$
25. ANS: C
 $\$6,324; 102,000 \times 0.062$
26. ANS: B
27. ANS: C
 $0.5 \times 100 = 50 + (35 \times 0.75) = \76.25
28. ANS: D
 $8,250 + 920 + 4,500 + 1,230 + 2,500 + 32,000 = 49,400$
29. ANS: B
30. ANS: D
 $3,549 - 3,150 = \$399$
31. ANS: C
 $(16,050 \times 0.1) + 0.28(134,899 - 16,050) = 1,605 + 33,277.72 = \$34,882.72$
32. ANS: C
 $13,830.25 + 4,839.13 + 1,010.00 = \$19,679.38$
33. ANS: B
 $31,000 \times 0.075 = 2,325; 10,500 - 2,325 = \$8,175$
34. ANS: A
 Find the difference between her taxes in the past and her current taxes.
 Before: $4,481.25 + 0.25(42,000 - 32,550) = \$6,843.75$
 With house: $42,000 - (4,900 + 8,400) = 28,700; 802.50 + 0.15(28,700 - 8,025) = 3,903.75$
 $6,843.75 - 3,903.75 = \$2,940.00$
35. ANS: D
 Tax credits are deducted from the tax owed once the tax is calculated. Tax deductions are deducted from the taxable income before the tax is calculated.
36. ANS: A
 $12 \times 40 \times 2 = 960; 960 - (960 \times 0.062) - (960 \times 0.0145) - (73.25 + 22.50 + 37.47) = \753.34
37. ANS: D

SHORT ANSWER

38. ANS:
 $\$4,131; 54,000(0.062 + 0.0145) = \$4,131$
39. ANS:
 $24 = 3x; 8 \text{ years}$
40. ANS:
 $(\$38,592 + \$37,590 + \$37,010) \div 3 = 37,730.67 \times 0.01 = 679.15 \times 28 = \$19,016.26 \text{ per year until her death.}$
41. ANS:
 $74 \text{ aprons; } 185 \div 2.5 = 74$
42. ANS:
 $\$8.55 \text{ per hour; } 40x + 3(1.5x) = 380.48$

43. ANS:
26
44. ANS:
 $\$555.82; (13,500 + 12,775) \div 26 = 1,010.58; 1,010.58 \times 0.55 = 555.82$
45. ANS:
 $\$12; 48.50 - 24.50 = 24; 24 \div 2 = 12$
46. ANS:
 $\$2,336.75; 9347 \times 0.25 = 2,336.75$
47. ANS:
Tax credits are subtracted from your tax after you look up the tax owed on a tax table. Deductions are subtracted from your taxable income before you look up the tax you owe on a tax table.
48. ANS:
\$8,306
49. ANS:
W-2; The purpose is to report wages and federal tax, medicare, and other deductions from income.
50. ANS:
 $\$95,988; 93,366 + 1,200 + 4,922 - 3,500 = \$95,988$
51. ANS:

Total itemized deductions	\$6,290
Interest	\$297
Adjusted gross income	\$41,223
Taxable income	\$37,723
Tax due	\$5,774.50
Tax owed	\$1,449.50

Itemized deductions: $1,500 + 2,000 + 2,790$

Adjusted gross income: $47,513 - 6,290$

Taxable income: $41,223 - 3,500$

Tax due: $4,481.25 + 0.25(37,723 - 32,550)$

Tax owed: $5,774.50 - 4,325$

52. ANS:
Line 10 should be the sum of lines 10 through 14, which is \$7,310. It should not include line 9.
53. ANS:
 $\$32,101.72; 25,550.00 + 0.28(154,849 - 131,450) = \$32,101.72$
54. ANS:
net pay
55. ANS:
Her taxable income is at least \$63,250 but less than 63,300.