

2.4-2.5 Loan Payments and Income TaxesGroup Activity

Use a spreadsheet to work on these problems. Write down the syntax to show your work. Answer each question in a complete sentence.

1. Sam has a student loan of \$30,000 at a fixed APR of 4.45%. If they want to pay it off in 15 years,
 - a. How much would they pay per month?

 - b. How much would they pay in total?

 - c. What percentage of the total was paid toward the loan amount of \$30,000 and what percentage was paid toward interest?

2. You want to buy a \$350,000 home. You plan to put 10% down and take out a 30-year fixed mortgage on the rest.
 - a. What will the loan amount be?

 - b. What will your monthly payment be if the interest rate is 4.5%?

 - c. If you make all the payments for 30 years, how much would you have paid for the house in total?

 - d. In part b above, what number would you get if you switch the 0 and the 315,000? Why are the answers so different? Explain the difference between these two scenarios.

2.5: Federal Income Taxes

3. Calculate the values for each household and determine the amount they owe or will be refunded.

2018 Tax Year	Dakota and Avery (no children)	Letitia (2 children)
Filing Status	Married Filing Jointly	Single (Single means she is not claiming her kids on her return, another parent is)
Adjusted Gross Income	\$93,700	\$42,600
Itemized Deductions	\$17,200	\$5,700
Standard Deduction		
Taxable Income		
Tax from Table		
Tax Credits	\$0	\$426
Tax Amount after Credits		
Federal Taxes Withheld	\$14,570	\$4,230
Federal Tax Owed or Refund		
Effective Rate (Tax amount after credits ÷ taxable income)		

2018 Tax Year	Joshua (3 children)	Karalene (no children)
Filing Status	Head of Household	Married Filing Separately
Adjusted Gross Income	\$38,200	\$125,400
Itemized Deductions	\$7,800	\$8,500
Standard Deduction		
Taxable Income		
Tax from Table		
Tax Credits	\$2,049	\$0
Tax Amount after Credits		
Federal Taxes Withheld	\$3,850	\$23,490
Federal Tax Owed or Refund		
Effective Rate (Tax amount after credits ÷ taxable income)		

4. Below is a portion of the 2017 tax year tax schedule from the form 1040 booklet.

a. Find the tax amount for a single person with a taxable income of \$39,890.

b. Find the tax amount for a married couple filing jointly with a taxable income of \$45,350.

c. Find the tax amount for a single dad filing as head of household with a taxable income of \$42,102.

2017 Tax Table — Continued

If line 43 (taxable income) is—		And you are—				If line 43 (taxable income) is—		And you are—				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	At least	But less than	Single	Married filing jointly *	Married filing separately	Head of a household	At least	But less than	Single	Married filing jointly *	Married filing separately	Head of a household
		Your tax is—						Your tax is—						Your tax is—			
39,000						42,000						45,000					
39,000	39,050	5,495	4,921	5,495	5,186	42,000	42,050	6,245	5,371	6,245	5,636	45,000	45,050	6,995	5,821	6,995	6,086
39,050	39,100	5,508	4,929	5,508	5,194	42,050	42,100	6,258	5,379	6,258	5,644	45,050	45,100	7,008	5,829	7,008	6,094
39,100	39,150	5,520	4,936	5,520	5,201	42,100	42,150	6,270	5,386	6,270	5,651	45,100	45,150	7,020	5,836	7,020	6,101
39,150	39,200	5,533	4,944	5,533	5,209	42,150	42,200	6,283	5,394	6,283	5,659	45,150	45,200	7,033	5,844	7,033	6,109
39,200	39,250	5,545	4,951	5,545	5,216	42,200	42,250	6,295	5,401	6,295	5,666	45,200	45,250	7,045	5,851	7,045	6,116
39,250	39,300	5,558	4,959	5,558	5,224	42,250	42,300	6,308	5,409	6,308	5,674	45,250	45,300	7,058	5,859	7,058	6,124
39,300	39,350	5,570	4,966	5,570	5,231	42,300	42,350	6,320	5,416	6,320	5,681	45,300	45,350	7,070	5,866	7,070	6,131
39,350	39,400	5,583	4,974	5,583	5,239	42,350	42,400	6,333	5,424	6,333	5,689	45,350	45,400	7,083	5,874	7,083	6,139
39,400	39,450	5,595	4,981	5,595	5,246	42,400	42,450	6,345	5,431	6,345	5,696	45,400	45,450	7,095	5,881	7,095	6,146
39,450	39,500	5,608	4,989	5,608	5,254	42,450	42,500	6,358	5,439	6,358	5,704	45,450	45,500	7,108	5,889	7,108	6,154
39,500	39,550	5,620	4,996	5,620	5,261	42,500	42,550	6,370	5,446	6,370	5,711	45,500	45,550	7,120	5,896	7,120	6,161
39,550	39,600	5,633	5,004	5,633	5,269	42,550	42,600	6,383	5,454	6,383	5,719	45,550	45,600	7,133	5,904	7,133	6,169
39,600	39,650	5,645	5,011	5,645	5,276	42,600	42,650	6,395	5,461	6,395	5,726	45,600	45,650	7,145	5,911	7,145	6,176
39,650	39,700	5,658	5,019	5,658	5,284	42,650	42,700	6,408	5,469	6,408	5,734	45,650	45,700	7,158	5,919	7,158	6,184
39,700	39,750	5,670	5,026	5,670	5,291	42,700	42,750	6,420	5,476	6,420	5,741	45,700	45,750	7,170	5,926	7,170	6,191
39,750	39,800	5,683	5,034	5,683	5,299	42,750	42,800	6,433	5,484	6,433	5,749	45,750	45,800	7,183	5,934	7,183	6,199
39,800	39,850	5,695	5,041	5,695	5,306	42,800	42,850	6,445	5,491	6,445	5,756	45,800	45,850	7,195	5,941	7,195	6,206
39,850	39,900	5,708	5,049	5,708	5,314	42,850	42,900	6,458	5,499	6,458	5,764	45,850	45,900	7,208	5,949	7,208	6,214
39,900	39,950	5,720	5,056	5,720	5,321	42,900	42,950	6,470	5,506	6,470	5,771	45,900	45,950	7,220	5,956	7,220	6,221
39,950	40,000	5,733	5,064	5,733	5,329	42,950	43,000	6,483	5,514	6,483	5,779	45,950	46,000	7,233	5,964	7,233	6,229
40,000						43,000						46,000					
40,000	40,050	5,745	5,071	5,745	5,336	43,000	43,050	6,495	5,521	6,495	5,786	46,000	46,050	7,245	5,971	7,245	6,236

More Practice

1. Use the **2018 tax tables** to answer the questions and show your steps. The tables will be given to you with any test. Write your answers in complete sentences.

a. Mariana is single and has \$11,402 in itemized deductions. What is her standard deduction and should she claim the itemized deductions or the standard deduction?

b. Vy has a gross income of \$129,500 and he filed as the head of household with 2 kids. He had \$6,500 in itemized deductions. Determine his deduction and calculate his taxable income.

c. Alex and Jesse are married, filing jointly. Their taxable income is \$96,210. Calculate the amount of tax they owe using the appropriate table.

d. Tim had \$8,420 deducted from his paychecks in withholdings. He calculated his taxes owed to be \$7,952. Does he get a refund or owe money and what is the amount?