

Troy borrows \$5620.00 to purchase a four wheeler. He takes out personal loan from his credit union at an annual rate of 5% with an amortization period of 5 years. Use the personal loan payment calculator table (page 132) to answer the questions.

Important

PERSONAL LOAN PAYMENT CALCULATOR: MONTHLY PAYMENT PER \$1000.00 BORROWED (INTEREST COMPOUNDED MONTHLY)					
Interest rate (%)	Term in years				
	1	2	3	4	5
3.00	84.69	42.98	29.08	22.13	17.97
3.25	84.81	43.09	29.19	22.24	18.08
5.00	85.61	43.87	29.97	23.03	18.87
5.25	85.72	43.98	30.08	23.14	18.99
5.50	85.84	44.10	30.20	23.26	19.10
5.75	85.95	44.21	30.31	23.37	19.22
6.00	86.07	44.32	30.42	23.49	19.33
6.25	86.18	44.43	30.54	23.60	19.45
6.50	86.30	44.55	30.65	23.71	19.57
6.75	86.41	44.66	30.76	23.83	19.68
7.00	86.53	44.77	30.88	23.95	19.80

1. What is Troy's monthly payment?

(i) $\frac{5620}{1000}$ Amount Borrowed (ii) 5.62×18.87
 $= 5.62$ $= \$106.05$

2. Calculate the total amount he will pay over the 5 years. (60 months)

$106.05 \times 60 = \$6363.00$

3. Calculate the finance charge on the loan.

$6363.00 - 5620.00 = \$743.00$

John is purchasing a new car which costs \$42,000.00. He has a down payment of \$5,000.00. He takes out a personal loan from his local bank at an annual rate of 5.75% and an amortization period of 4 years. (Use 15% HST)

Tax first then subtract **important** down payment

PERSONAL LOAN PAYMENT CALCULATOR: MONTHLY PAYMENT PER \$1000.00 BORROWED (INTEREST COMPOUNDED MONTHLY)					
Interest rate (%)	Term in years				
	1	2	3	<u>4</u>	5
3.00	84.69	42.98	29.08	22.13	17.97
3.25	84.81	43.09	29.19	22.24	18.08
5.00	85.61	43.87	29.97	23.03	18.87
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1. What is John's monthly payment?

$$\begin{array}{r} \text{(i)} \ 42000.00 \\ \times 1.15 \\ \hline 48300.00 \end{array}$$

$$\begin{array}{r} \text{(ii)} \ 48300.00 \\ - 5000.00 \\ \hline 43300.00 \end{array}$$

Amount Borrowed

$$\begin{array}{r} \text{(iii)} \ 43300.00 \\ \hline 1000 \\ \hline = 43.3 \end{array}$$

$$\begin{array}{r} \text{(iv)} \ 43.3 \times 23.37 \\ \hline = \$1011.921 \end{array}$$

2. Calculate the total amount he will pay over the 4 years. (48 months)

$$1011.92 \times 48 = \$48572.21$$

3. Calculate the finance charge on the loan.

$$48572.21 - 43300 = \$5272.21$$

Jack is purchasing a new trailer which costs \$36 000.00. He is trading in his old trailer which they valued at \$15 000.00. He takes out a personal loan from his local bank at an annual rate of 5.25% and an amortization period of 5 years. (Use 15% HST)

Subtract the trade in value then figure out tax **Important**

PERSONAL LOAN PAYMENT CALCULATOR:
MONTHLY PAYMENT PER \$1000.00 BORROWED
(INTEREST COMPOUNDED MONTHLY)

Interest rate (%)	Term in years				
	1	2	3	4	5
3.00	84.69	42.98	29.08	22.13	17.97
3.25	84.81	43.09	29.19	22.24	18.08
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6.25	86.18	44.43	30.54	23.60	19.45
6.50	86.30	44.55	30.65	23.71	19.57
6.75	86.41	44.66	30.76	23.83	19.68
7.00	86.53	44.77	30.88	23.95	19.80

1. What is Jack's monthly payment?

(i)
$$\begin{array}{r} 36000.00 \\ -15000.00 \\ \hline 21000.00 \end{array}$$

(ii)
$$\begin{array}{r} 21000.00 \\ \times 1.15 \text{ Amount Borrowed} \\ \hline 24150.00 \end{array}$$

(iii)
$$\begin{array}{r} 24150.00 \\ 1000 \\ \hline = 24.15 \end{array}$$

(iv)
$$24.15 \times 18.99 = \$458.6085 = \boxed{\$458.61}$$

2. Calculate the total amount he will pay over the 5 years. (60 months)

$$\$458.61 \times 60 = \boxed{\$27516.60}$$

3. Calculate the finance charge on the loan.

$$\$27516.60 - 24150.00 = \boxed{\$3366.60}$$