

Budgeting → planning how you're going to spend money because you have to.

+
Protesting the Increase in the Cost of Living



<https://www.theguardian.com/lifeandstyle/2011/jul/17/bread-food-arab-spring>

https://www.vice.com/en_ca/article/59n7nx/canadians-will-pay-more-for-food-next-year-thanks-to-climate-change

PART A: APPLYING A % INCREASE OR DECREASE TO AN EXPENSE

Question 1: The cost of living in Paris is expensive. Adrien, who lives there, has budgeted \$35 per week to buy gasoline for his car.

↳ "can't pay more than"

a) If the price of gas is \$2.33/litre, how many litres of gas can he buy?

+ - x ÷

$$\text{How many} = \frac{AB}{\text{cost per unit}}$$

$$\text{How many} = \frac{35 \text{ \$}}{2.33 \text{ \$/L}}$$

$$\text{How many} = 15.02 \frac{\text{\$}}{1} \times \frac{1}{\text{\$/L}}$$

$$\text{How many} = 15.02 \text{ L}$$

step i. identify amount budgeted
AB = 35 \$

step ii. Cost per unit. unit: what # is measured in.
2.33 \$/L

1 litre costs 2.33 \$
step iii use formula

b) The French President Macron increased the price of gas by 7% to fight against air pollution and climate change. If Adrien's budget can't absorb any new expenses, how many litres of gas will \$35 now get him?

original cost = 2.33 \$/L

↳ he has a tight budget
↳ he can't pay more.

step i. calculate the new cost per unit.

$$\text{New Cost} = 2.33 + 0.07 \times 2.33$$

$$\text{New Cost} = 2.49 \text{ \$/L}$$

$$\text{New Cost} = \text{original cost} + \% \times \text{o.c.}$$

(where % is expressed as decimal)

step ii Do step i and step iii

$$HM = \frac{AB}{\text{cost/unit}}$$

$$HM = \frac{35 \text{ \$}}{2.49 \text{ \$/L}}$$

$$HM = 14.06 \text{ Litre}$$

Do question 2-5 in lesson 18.

p 9 4.

Question 5: How many pounds of meat could you buy with 40\$ if the price is \$12.50 a pound?

$$Hm = \frac{AB}{\text{cost/unit}}$$

$$Hm = \frac{40}{12.50} / \text{lb}$$

$$Hm = 3.2 \text{ lb}$$

a) With the same amount of money, calculate how many more pounds of meat you could buy if the price per pound decreased by 3%.

$$Hm = \frac{40}{12.13} / \text{lb}$$

$$Hm = 3.2976 \text{ lb}$$

$$Hm = 3.3 \text{ lb}$$

$$\text{new cost} = \frac{\text{old cost}}{1 - \%} \times \text{old cost}$$

$$\text{new cost} = 12.5 - 0.03 \times 12.5$$

$$\text{new cost} = 12.13 \text{ \$/lb}$$

How much more? $(3.3 - 3.2)$ 0.10 lb more

b) Calculate how many pounds less of meat 40\$ could get you if the price per pound increased by 2.5%.

$$Hm = \frac{AB}{\text{cost/unit}}$$

$$Hm = \frac{40}{12.81} / \text{lb}$$

$$Hm = 3.12 \text{ lb}$$

$$\text{new cost} = \frac{\text{old cost}}{1 - \%} \times \text{old cost}$$

$$\text{new cost} = 12.5 + 0.025 \times 12.5$$

$$\text{new cost} = 12.81 \text{ \$/lb}$$

1b = pound

$$2.5 \%$$

$$2.5 \frac{\%}{100}$$

$$0.025$$

How much less?

$$(3.2 \text{ lb} - 3.12 \text{ lb})$$

$$0.08 \text{ lb less!}$$

Verifying if a Budget

can absorb an unexpected Expenses \rightarrow pay for the expense w/out deficit

<https://ptmoney.com/budgeting-for-unexpected-expenses/>

\rightarrow Labeling / Naming Expenses

\rightarrow Fixed Cost
 • Rent

\rightarrow Variable Costs
 • Food

\rightarrow Emergency Expense \rightarrow 3 months of salary should be saved.
 'in stock market?'
 no

\rightarrow Miscellaneous Expenses

JAN

FEB

\rightarrow one-time optional random purchase
 e.g. winter coat \rightarrow \$500

deficit

\rightarrow a deficit is okay.

\rightarrow Irregular Expense

\rightarrow Reoccurring expense, not at a monthly interval

\rightarrow ex. every 3 months. \rightarrow a deficit is not okay
 ex. money for drug store

• contacts/glasses

• dentist

\rightarrow 250\$ every 3 months

\rightarrow spread out payment over months.

Jan	Feb	March
$\frac{\$250}{3}$	$\frac{\$250}{3}$	$\frac{\$250}{3} = \boxed{\$83.33}$

PART B: VERIFYING IF A BUDGET CAN ABSORB AN INCREASE OF AN EXPENSE OR AN UNEXPECTED EXPENSE

Question 1:

a) Below is Adrien's budget. How much has he budgeted for taxis?

→ \$ planned for taxi.

---MONTHLY BUDGET---

Revenue		Expenses	
Salary	366	Fixed Costs	
Allowance	160	· Rent	500
CPP (government)	500	· Hydro	30.85
		Variable Costs	
		· Food	300
		· Taxi <i>→</i>	190

\$ 190

b) Since the price of gas has gone up, the price of taxis has also gone up by 5%. Can he still afford this expense?

$$\text{new cost} = \text{o.c.} + 0.05 \times \text{o.c.}$$

$$\text{N.C.} = 190 + 0.05 \times 190$$

$$\text{N.C.} = 199.50 \$ \rightarrow \text{variable}$$

Revenue	
S	366
A	160
C	500
T. R.	\$1026

EXP	
R	500
H	30.85
F	300
T	199.50
T. E.	1030.35 \$

step i. calculate expense and label it
step ii. create budget.

Budget surplus or Deficit	T. R.	-	T. E.
		-	4.33 \$

deficit for a variable cost → always bad.
∴ his budget can not absorb expenses.

Jan
---MONTHLY BUDGET---

Revenue		Expenses	
Salary	366	Fixed Costs	
Allowance	160	Rent	500
CPP (government)	500	Hydro	30.85
		Variable Costs	
		Food	300
		Taxi	190

T.R. \$1026

miscellaneous \$350
bike

T.E. \$1180.35

D/S: $T.R. - T.E.$
\$ -154.85

Feb
---MONTHLY BUDGET---

Revenue		Exp	
Salary	366	R	500
Allowance	160	H	30.98
CPP (government)	500	FOOD	300
		bike	154.85

T.R. \$1026

T.E. 985.70

D/S $T.R. - T.E.$
\$ 40.30

c) If he eliminates taxis from his budget, could he afford to buy a bicycle that costs \$350 and use that as his transportation?

mis.

For homework
finish handout.

deficit okay cause
small miscell and pay
next month.