ST. JEAN DE BREBEUF MATHEMATICS

CHAPTER 83

THE COSTS OF OWNING A HOME

CHAPTER 8.3 THE COSTS OF OWNING A HOME

KEY CONCEPTS

Housing prices can vary greatly from one community to another

How ownership involves many expenses other than the mortgage

Property taxes are taxes charged to property owners by municipalities to pay for a number of local services including education, police, fire department, public libraries and snow removal

Owning a *condominium* often involves paying **common costs**

→ A *condominium* is a unit in a housing complex which is collectively <u>owned by the residents</u>

→ *Common costs* are expenses shared by all owners of a condominium complex

→ may include snow removal, grass cutting, cable TV, maintenance

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EXAMPLE 1 *The Expenses Associated with Owning a Detached Home*

Dinesh and Mandeep have owned a three-bedroom bungalow for 12 years. They make weekly mortgage payments of **$214.88**. They make quarterly payments for property taxes of **$945**. They have a separate bank account for home repairs and put **$116** into this account bi-weekly. They receive bills for electricity, natural gas, water, home insurance, satellite television, telephone and Internet access. The average monthly total for these expenses is **$560**.

Complete the table to determine Dinesh and Mandeep's **annual** expenses associated with the house.

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EXAMPLE 1 *The Expenses Associated with Owning a Detached Home*

Complete the table to determine Dinesh and Mandeep's **annual** expenses associated with the house.

PAYMENT / AMOUNT and FREQUENCY	*TOTAL PER YEAR*
Mortgage ($214.88 per week)	$214.88 x 52 = **$11 173.76** **52** times per year
Property taxes ($945 quarterly) **4** times per year	$945 x **4** = **$3780**
Home repairs ($116 bi-weekly) **26** times per year	$116 x **26** = **$3016**
Utilities and other ($560 per month) **12** times per year	$560 x **12** = **$6720**
TOTAL	**$24 689.76 per year**

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EXAMPLE 2 *The Expenses Associated With Owning a Condominium*

Gail is retired with a fixed income of **$1900 per month**. She lives in a one-bedroom condominium in three-story building that was once an apartment building. Her mortgage payment is **$618 per month**. The *common fees* associated with the condominium are **$325 per month**. She also receives a bi-monthly (every other month) electricity bill for **$130** and a quarterly water bill for **$180**.

(a) Calculate Gail's **fixed** monthly accommodations expenses

Fixed expenses = mortgage payment + associated fees

= 618 + 325

= $943

Gail's *fixed* accommodations expense is **$943 per month**

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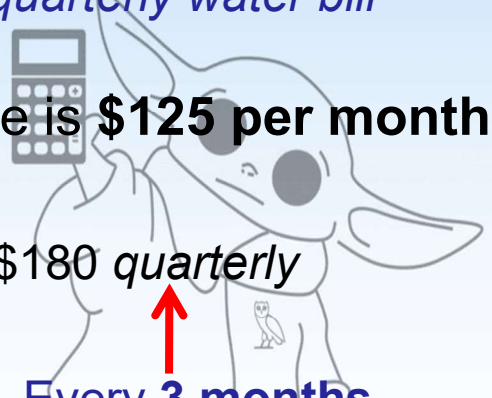
(b) Calculate Gail's average monthly **utility** expenses

Total utility expenses = monthly electricity bill + monthly quarterly water bill

= 65 + 60

= $125

Gail's utility expense is **$125 per month**



(1) Electricity bill → $130 *bi-monthly*

130 / 2

= $65

Every *other* month → Divide amount by **2**

(2) Water bill → $180 *quarterly*

180 / 3

= $60

Every **3 months** → Divide amount by **3**

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(c) On average, what **percent** of her income does Gail spend on **total** monthly accommodation costs? Round to the nearest percent.

Total accommodations expenses = fixed costs + utilities

= 943 + 125

= $1068

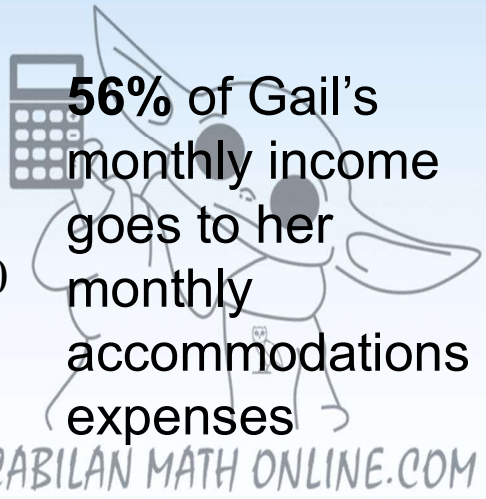
$$For\ percent = \frac{Expenses}{Income} \times 100$$

$$For\ percent = \frac{1068}{1900} \times 100$$

$$For\ percent = 0.5621 \times 100$$

$$For\ percent = 56\%$$

56% of Gail's monthly income goes to her monthly accommodations expenses



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(d) On average, how much of her income is left over?

*If **56%** of her monthly income goes to accommodations expenses, then*
44 *% will be left over*

Left over money = monthly income x 44%
= 1900 x 0.44
= $836

44 / 100
= 0.44

Gail will have **$836 left over per month**

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HOMEWORK

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