Name:

UNIT 8 LEARNING GUIDE – FINANCES

INSTRUCTIONS:

Using a pencil, complete the following questions as you work through the related lessons. Show ALL of your work as is explained in the lessons. Do your best and always ask questions if there is anything that you don't understand.

8.1 HISTORY OF FINANCE

1. Classify each example as barter or money.

	Barter	Money
a. Trading doing the dishes for a hamburger.		
b. Exchanging $10 for a movie ticket		
c. An exchange using coins or banknotes.		
d. J.T. gets a new car and pays for it with his credit card.		
e. Mr. R traded Mr. B two chickens for a leather belt.		
f. The trading of one service for another service.		
g. Trading seven dollars for a hamburger.		
h. Simi gives Jim her cookies in exchange for him cleaning her desk.		

2. The 5 steps of Material Consumption are listed below, but they are not in order.

Consumption Distribution Extraction Disposal Production

a. Order the steps that "stuff" moves through.

i. iv.

ii. v.

iii.

b. Give an example of what each step might look like for a cell phone.

i.

ii.

iii.

iv.

v.

3. Give two examples of how you think consumerism negatively affects our society.

4. Identify each habit as a habit of consumerism or a habit of minimalism.

a. The need of an item is carefully considered prior to purchasing.

b. Items are purchased to help you be happy.

c. Judging people based on what they own.

d. Valuing experiences over things.

e. Buying items that are a good deal, even if they aren't really needed.

f. Recognizing that material goods do not lead to long-term happiness.

8.2 Saving Money

1. Classify each example as a *need* or a *want.*

	Need	Want
a. The newest style of runners.		
b. A warm jacket.		
c. Healthy breakfast food.		
d. Netflix or cable TV		
e. Medicine if you are sick.		
f. Shelter (an apartment, house, etc.)		
g. Chocolate bars.		
h. Swimming lessons.		

2. Meredith wants to save up for a new bike which costs $1100. She earns $165 per **week** as a dishwasher. If she saves all her money each week, how long will it take her to save up enough money for the bike?

3. Alex wants to purchase a drafting table that costs $315. He plans on saving half of his paycheck each **month** in order to save up for this purchase. His average monthly earnings are $235. How long will it take him to save up enough for the drafting table?

4. What does each letter stand for in a S.M.A.R.T. budget?

   S _____

   M _____

   A _____

   R _____

   T _____

5. Create a SMART budget for yourself by following the steps below. You can choose to use the amount of money that you earn now, or you can use an amount that you hope to earn in your first job.

   Step 1: Add up all of the money that you earn in one month.

   Total monthly income: _____

   Step 2: Write down how much money you want to save and what you want to save it for.

   Savings goal: _____

   Step 3: Write down what you normally spend your money on each month.

   Total monthly expenses: _____

   Step 4: Subtract your expenses from your income. This is the amount that you can put into savings.

   Total amount into savings per month: _____

   Step 5: Compare your *Savings Goal* and how much you can put into savings each month. How long will it take for you to reach your *Savings Goal?*

6. Use the questions below to determine if the budget that you created in Question 5 is a S.M.A.R.T. budget.

   Specific: Are you specific with what you are saving for?

   Measurable: Do you know exactly how much you need to save?

   Attainable: Are you able to reach your goal if you stay on track?

   Realistic: Looking at your finances, is this budget realistic?

   Timely: Is your budget able to get you what you're saving for in a reasonable amount of time?

7. Based on your answers to Question 6, write down any changes that you need to make to your original budget.

8.3 Percentage Discounts

1. Find 10% of each number. *Reminder: To find 10% of a number, move the decimal one place to the left. If a number doesn't have a decimal, we can place one at the end.*

Ex. 280
28

a. 160

b. 40

c. 94

d. 450

e. 1200

f. 75

g. 8

h. 32

2. Fill in the table. Use the value of 10% of each number to determine how much 5% and 20% will be. *Reminder: 5% of a number will be **half** of the value of 10% of that number. 20% of a number will be **double** the value of 10% of that number.*

	Original Amount	10% of Original Amount	5% of Original Amount	20% of Original Amount
Ex.	120	***12***	***6***	***24***
a.	40			
b.	100			
c.	80			
d.	30			
e.	260			
f.	5200			

3. Find 50% of each number. *Reminder: To find 50% of a number, divide that number by 2.*

Ex. 68
$68 \div 2 = \mathbf{34}$

a. 42

b. 30

c. 210

d. 58

e. 600

f. 2

g. 7

h. 5000

4. Combine your skills from Questions 1 – 3 to determine the following values.

Ex. 25% of 70

10% of 70 = 7
20% of 70 = 14
5% of 70 = 3.5
20% + 5% = 25%
14 + 3.5 = 17.5
25% 0f 70 = 17.5

a. 25% of 30

b. 30% of 40

c. 15% of 140

d. 60% of 18

e. 55% of 2000

f. 60% of 550

g. 45% of 90

5. Use cross-multiplication to determine each amount.

Ex. What is 30% of 36?

$$\frac{y}{36} = \frac{30}{100}$$
$$y \times 100 = 36 \times 30$$
$$y \times 100 = 1080$$
$$y = \frac{1080}{100}$$
$$y = 10.8$$

30% of 36 is 10.8

a. What is 75% of 16?

$$\frac{y}{\quad} = \frac{\quad}{100}$$
$$y \times 100 = \_\_ \times \_\_$$
$$y \times 100 =$$
$$y = \frac{\quad}{100}$$
$$y =$$

b. What is 42% of 50?

$$\frac{y}{\quad} = \frac{\quad}{100}$$
$$y \times 100 = \_\_ \times \_\_$$
$$y \times 100 =$$
$$y = \frac{\quad}{100}$$
$$y =$$

c. What is 85% of 200?

6. Follow the steps to determine the sale price of each item.

Step 1: *Find the amount of the discount.* $(Original\ price\ \times\ \%\ off)$
Step 2: *Find the sale price.* $(Original\ price - Amount\ of\ discount)$

Ex. Original Price: $39.00
Discount 15% off

$\$39.00 \times 0.15 = \$5.85$
$\$39.00 - \$5.85 = \$\mathbf{33.15}$

a. Original Price: $16.00
Discount 28% off

b. Original Price: $108.75
Discount 43% off

c. Original Price: $1459.99
Discount 9% off

7. Fill in the table. Reduce fractions to lowest terms.

	Percent	Decimal	Fraction
Ex.	**75%**	0.75	$\frac{75}{100} = \frac{3}{4}$
a.		0.09	
b.	65%		
c.			$\frac{1}{2}$
d.			$\frac{7}{20}$
e.	5%		
f.		0.02	

8. Solve the following problems.

   a. The price of one case of medicine is $75.00. A pharmacy is ordering three cases and will receive a 12% discount. What is the amount of the discount? What is the cost for all three cases (excluding taxes)?

   b. At The Jean Warehouse the jeans you want to purchase are 20% off the original price of $54.99. The same pair of jeans has the same price at Jean's World, but there you get $15 off any pair of jeans. Where would you get the best deal on these jeans?

8.4 Percentage Increases

1. Calculate the price of each item after taxes. Use the following values for each tax: GST 5%, PST 7%.

Ex. Price: $8.95 + GST & PST

$0.05 + 0.07 = 0.12$

$\$8.95 \times 1.12 = \$\mathbf{10.02}$

b. Price: $230.50 + GST only

a. Price: $22.45 + GST & PST

c. Price: $1575.42 + GST & PST

2. In your own words, describe inflation.

3. The rate of inflation for this year is estimated to be 1.9%. If you are currently earning $16.00 per hour, how much would you need to make next year to keep up with inflation?

4. Jon takes a taxi and the final charge is $31.60. How much would he pay in total if he wanted to leave a 10% tip?

5. At restaurants in BC, only GST is added to food and non-alcoholic beverages. Fill in the missing information on the restaurant bill below, leaving a 16% tip. *Reminder: Tips are calculated on the total before taxes.*

Pasta Palace Restaurant			
Item	Quantity	Price	Amount
Spaghetti Special	2	$13.99	$27.98
Lasagna	1	$19.99	$19.99
Chef's Salad	1	$14.99	$14.99
Garlic Bread	2	$3.99	a.
Soft Drinks	4	$3.19	b.
Apple Pie	2	$5.29	$10.58
Cheesecake	2	c.	$11.78
		Subtotal	d.
		GST	e.
		Gratuity (Tip)	f.
		Total	g.

8.5 Comparing Prices

1. Convert each fraction to a decimal without a calculator.

Ex. $\frac{2}{9}$ $9\overline{)2.00} = 0.\overline{2}$ (0.22)

a. $\frac{2}{5}$

b. $\frac{7}{8}$

c. $\frac{3}{11}$

d. $\frac{3}{9}$

e. $\frac{9}{20}$

2. Find the unit price of each item.

a. 6 dish sponges for $9.88
$\$9.88 \div 6 = \$1.65$
$1.65 per sponge

b. 24 rolls of toilet paper for $16.48

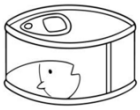
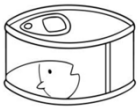
c. A box of 36 crackers for $4.49

d. A dozen whole wheat buns for $7.50

e. 825 grams of almonds for $23.41 (Find the price per 100g)

f. 2 litres of orange juice for $6.99 (Find the price per 100 mL)

3. Calculate which item is the better buy based on unit price.

	Item A	Item A Unit Rate	Item B	Item B Unit Rate	Which is the better buy?
a.	 500 mL $7.99		 750 mL $10.99		
b.	 $4.45 for 2		 $6.89 for 3		

8.6 BANKING

1. Below are some examples of money deposited into savings accounts. Determine the amount of interest earned and the final balance in each example.

Ex. Opening balance: *$1250* Interest Earned: ***$30***

Annual Interest rate: *1.2%* Final Balance: ***$1280***

Length of savings period: *2 years*

$1.2\% = 0.012$

$\$1250 \times 0.012 \times 2\ years$

$\$\mathbf{30}$

$\$1250 + \$30 = \$\mathbf{1280}$

a. Opening balance: *$5000* Interest Earned: _____

Annual Interest rate: *2.5%* Final Balance: _____

Length of savings period: *1 year*

b. Opening balance: *$1000* Interest Earned: _____

Annual Interest rate: *4.1%* Final Balance: _____

Length of savings period: *5 years*

c. Opening balance: *$15 000* Interest Earned: _____

Annual Interest rate: *0.9%* Final Balance: _____

Length of savings period: *6* ***months***

2. Below are some typical examples of payday loans. Determine the amount of interest charged, the annual interest rate and the total amount to be paid back for each situation.

Ex. Amount Borrowed: *$525* Interest Charged: ***$94.50***
Borrowing Fees: *$18 per $100 borrowed* Annual Interest Rate: ***468%***
Length of borrowing period: *2 weeks* Total to be Paid Back: ***$619.50***

$\$525 = 5.25\ hundreds$

$5.25 \times \$18 = \mathbf{\$94.50}$

$\$525.00 + \$94.50 = \mathbf{\$619.50}$

$\frac{\$94.50}{\$525} = 18\%$

$\frac{18\%}{2\ weeks} = \frac{x\ \%}{52\ weeks}$

$x = \mathbf{468}\%$

a. Amount Borrowed: *$1200* Interest Charged: _____
Borrowing Fees: *$16.50 per $100 borrowed* Annual Interest Rate: _____
Length of borrowing period: *2 weeks* Total to be Paid Back: _____

b. Amount Borrowed: *$350* Interest Charged: _____
Borrowing Fees: *$29 per $100 borrowed* Annual Interest Rate: _____
Length of borrowing period: ***4** weeks* Total to be Paid Back: _____

3. The same borrowing situations as in Question 2 are found below; however, the lender is now the bank, rather than a Pay Day Loan company. Determine the amount of interest charged, the annual interest rate and the total amount to be paid back for each situation.

Ex. Amount Borrowed: *$525* Interest Charged: ***$1.33***
Interest Rate: *6.6%* Annual Interest Rate: **6.6%**
Length of borrowing period: *2 weeks* Total to be Paid Back: ***$526.33***

$6.6\% = 0.066$

$\$525 \times 0.066 = \$34.65\ (for\ an\ entire\ year)$

$$\frac{\$34.65}{52\ weeks} = \frac{\$\ x}{2\ weeks}$$

$\$34.65 \div 52 \times 2 = x$

$x = \$\mathbf{1.33}$

a. Amount Borrowed: *$1200* Interest Charged: _____
Interest Rate: *7.5%* Annual Interest Rate: _____
Length of borrowing period: *2 weeks* Total to be Paid Back: _____

b. Amount Borrowed: *$350* Interest Charged: _____
Interest Rate: *9%* Annual Interest Rate: _____
Length of borrowing period: ***4** weeks* Total to be Paid Back: _____

4. In your own words, describe why it takes so long to pay off a credit card debt if you are only making the minimum payments.

8.7 Simple Interest

1. Indicate the meaning of each letter in the Simple Interest Formula below.

   $I = prt$

   I : _____

   p : _____

   r : _____

   t : _____

2. In your own words, describe what *principle* means (in financial situations.)

3. Calculate the amount of Simple Interest charged and the total amount to be paid at the end of the loan period for each example below.

   a. Principle: *$500*
      Annual Interest rate: *6%*
      Length of borrowing period: *2 years*
      Interest Charged: _____
      Total to be paid: _____

   b. Principle: *$6000*
      Annual Interest rate: *4%*
      Length of borrowing period: *3 years*
      Interest Charged: _____
      Total to be paid: _____

   c. Principle: *$15 000*
      Annual Interest rate: *6.5%*
      Length of borrowing period: *5 years*
      Interest Charged: _____
      Total to be paid: _____

   d. Principle: *$4000*
      Annual Interest rate: *16%*
      Length of borrowing period: *6 months*
      Interest Charged: _____
      Total to be paid: _____

4. Solve the Simple Interest problems below using the method of your choice (ie. triangle method or isolating the variable.)
    a. Keegan deposited $700 into his bank account. After one year, his bank account balance was $761.60. What interest rate did he earn?

    b. Johanna wants to wait until her bank account balance is $15 000 before she withdraws any money. She initially deposited $12 500 and is earning an interest rate of 4.6%. How long will it take for her principle amount to reach her goal amount?

    c. Isabel bought a new TV for $800. She didn't have to pay for 20 months, but she owed $986.67 at the end of the 20 months. What interest rate was she charged?

    d. Thirty-two weeks after he borrowed $7500 from the bank, Joaquin wanted to pay off his loan. What does he owe if he was charged an annual interest rate of 6.1%?

UNIT 8 – ANSWER KEY

SECTION 8.1

1. Barter: a, e, f, h. Money: b, c, d, g
2. a. i. Extraction, ii. Production, iii. Distribution, iv. Consumption, v. Disposal
   b. Answers may vary. Example: i. Mining for metals, ii. Overseas factory production, iii. Boats and Trucks to deliver to big box stores, iv. Cell phone used by someone in Canada for 3 years, v. Some parts recycled, some parts sent to landfill
3. Multiple possible answers. Example: excessive debt, basing happiness on material possessions
4. a. Min. b. Con. c. Con. d. Min. e. Con. f. Min.

SECTION 8.2

1. Need: b, c, e, f Want: a, d, g, h
2. 7 weeks
3. 3 months
4. Specific, Measurable, Attainable, Realistic, Timely
5. Answers will vary.
6. Answers will vary.
7. Answers will vary.

SECTION 8.3

1. a. 16 b. 4 c. 9.4 d. 45 e. 120 f. 7.5 g. 0.8 h. 3.2
2. a. 4, 2, 8 b. 10, 5, 20 c. 8, 4, 16 d. 3, 1.5, 6 e. 26, 13, 52 f. 520, 260, 1040
3. a. 21 b. 15 c. 105 d. 29 e. 300 f. 1 g. 3.5 h. 2500
4. a. 7.5 b. 12 c. 21 d. 10.8 e. 1100 f. 330 g. 40.5
5. a. 12 b. 21 c. 170
6. a. $11.52 b. $61.99 c. $1328.59
7. a. $9\%, \frac{9}{100}$ b. $0.65, \frac{13}{20}$ c. $50\%, 0.5$ d. $35\%, 0.35$ e. $0.05, \frac{1}{20}$ f. $2\%, \frac{1}{50}$
8. a. Discount: $27, Cost: $198 b. Jean's World ($39.99)

SECTION 8.4

1. a. $25.14 b. $242.03 c. $1764.47
2. Answers may vary. Ex. Average rise in prices over a specific period of time.
3. $16.30
4. $34.76

5. a. $7.98 b. $12.76 c. $5.89 d. $106.06 e. $5.30 f. $16.97 g. $128.33

SECTION 8.5

1. a. 0.4 b. 0.875 c. $0.\overline{27}$ d. $0.\overline{3}$ e. 0.45
2. a. $0.69/roll b. $0.12/cracker c. $0.63/bun d. $2.84/100g e. $0.35/100 mL
3. a. Item A: 1.6¢/mL OR $1.60/100 mL, Item B: 1.5¢/mL OR $1.47/100 mL Best buy: Item B b. Item A: $2.23 each, Item B: $2.30 each Best buy: Item A

SECTION 8.6

1. a. $125, $5125 b. $205, $1205 c. $67.50, $15 067.50
2. a. Int. Charged: $198; Annual Int. Rate: 429%; Total: $1398.00
   b. Int. Charged: $101.50; Annual Int. Rate: 377%; Total: $451.50
3. a. Interest: $3.46; Total: $1203.46 b. Interest: $2.42; Total $352.42
4. Answers may vary. Ex. The minimum payment on a credit card only covers the interest charges plus a tiny amount of the principle.

SECTION 8.7

1. Interest, Principle, Rate (annual), Time (in years)
2. The original amount invested/deposited or borrowed.
3. a. $60, $560 b. $720, $6720 c. $4875, $19 875 d. $320, $4320
4. a. 8.8% b. Approx. 4.35 years *or* 52 months c. 14% d. $7781.54