Date ________________ Name KEY

Financial Literacy I

Get Ready

Time

1. Express each period of time in years.

a) 24 months 2

b) 26 weeks 0.5

c) 6 months 0.5

d) 8 months 2/3 or 0.67

e) 18 months 1.5

f) 1 day 1/365 or 0.0027

g) April 1/12 or 0.083

h) from current age until 60 ____

60 - current age =

2. Express each time period in months

a) 4 years 48

b) $3\frac{1}{2}$ years 42

c) 20 years 240

d) April - November 7

e) 5 years 60

f) 10 years 120

g) 25 years 300

h) from current age until 60 # years × 12

Numbers

3. List the 6 different pairs of whole numbers that multiply to 72.

1 × 72 = 72

2 × 36

3 × 24

4 × 18

6 × 12

8 × 9

4. Express each percent as a decimal.

a) 65% 0.65

b) 20% 0.20

c) 100% 1.00

d) 29.9% 0.299

e) 44% 0.44

f) 1% 0.01

g) 0.1% 0.001

h) 0.25% 0.0025

5. Calculate. Round to the nearest tenth.

a) $18\%\ of\ 255$

45.9

d) $32\%\ of\ 28$

9.0

b) $70\%\ of\ 300$

210.0

e) $60\%\ of\ 25$

15.0

c) $13\%\ of\ 400$

52.0

f) $25\%\ of\ 850$

212.5

6. Determine each value WITHOUT using a calculator.

a) 1% of \$100 \$1

b) 1% of \$1000 \$10

c) 2% of \$100 \$2

d) 20% of \$7000 \$1400

e) 1% of \$300 \$3

f) 1% of \$5000 \$50

g) 10% of \$700 \$70

h) 50% of \$1500 \$750

7. Calculate each power.

a) 1^{10} 1

b) $(0.1)^2$ 0.01

c) $(0.2)^3$ 0.008

d) 3^{10} 59,049

e) $(0.4)^{15}$ 1.07×10^{-6}

f) $(1.4)^{20}$ 836.7

Taxes

In Canada, you pay the federal government's Goods and Services Tax (GST) on most purchases. Most provinces also charge a Provincial Sales Tax (PST). Several provincials combine the two taxes and charge a Harmonized Sales Tax, (HST).

To calculate the tax in BC, EITHER calculate the GST (5%) and PST (7%) and add them together OR calculate the combined amount by using the total tax rate, (12%).

8. Calculate the amount of tax you would pay on the purchase of each item assuming you must pay GST and PST.

a) $2 — $0.24

c) $10 — $1.20

e) $725 — $87.00

g) $100 — $12.00

b) $50 — $6.00

d) $250 — $30.00

f) $1000 — $120.00

h) $5000 — $600.00

9. You are purchasing a new car that costs about $30 000. APPROXIMATELY how much tax will you have to pay? $\sim 12 \times 300\cancel{00} \approx \$3600$

10. The actual cost of the car is $29 483.09 before taxes. Calculate the exact amount of the tax that you would have to pay.

$3537.97

Rounding

11. Express each of the following money values to the nearest cent.

a) $12.1 $12.10

c) $23.375 $23.38

e) $38.8 $38.80

b) $127.4525 $127.45

d) $421.295 $421.30

f) $124.5 $124.50

12. Express each of the following money values to the nearest dollar.

a) $12.1 $12

c) $23.375 $23

e) $38.8 $39

b) $127.4525 $127

d) $421.295 $421

f) $124.5 $125

Substituting Into Formulas

13. Where $a = bcd$, find the missing variable.

a) $b = 4, c = 8, d = 12$

$a = 4(8)(12)$

$a = 384$

c) $b = 14, c = 0.8, d = 125$

$a = 14(0.8)(125)$

$a = 1400$

$a = bcd$

b) $a = 60, c = 5, d = 3$

$b = \frac{a}{cd} = \frac{60}{5(3)}$

$= \frac{60}{15} = \boxed{4}$

d) $a = 120, b = 8, d = 0.5$

$C = \frac{a}{bd} = \frac{120}{8(0.5)}$

$= \frac{120}{4} = \boxed{30}$

14. Where $x = 3(1 + y)$, find the missing variable.

a) $y = 10$

$x = 3(1+10)$
$= 3(11)$
$= 33$

b) $x = 60$

$60 = 3(1+y)$
$60 = 3+3y$
$57 = 3y$
$y = 19$

c) $x = 1200$

$1200 = 3(1+y)$
$1200 = 3+3y$
$1197 = 3y$
$y = 399$

15. Where $m = 100(1 + n)^p$. Round to 2 decimal places.

a) $n = 0.03, p = 5$

$m = 100(1+0.03)^5$
$= 115.93$

b) $n = 0.065, p = 12$

$m = 100(1+0.065)^{12}$
$= 212.91$

c) $n = 0.13, p = 20$

$m = 100(1+0.13)^{20}$
$= 1152.31$

Rearrange Formulas

16. Rearrange each formula as indicated.

a) $C = \pi d, d =$

$d = \frac{C}{\pi}$

c) $A = lw, w =$

$w = \frac{A}{l}$

e) $V = \frac{d}{t}, d =$

$d = Vt$

b) $V = lwh, h =$

$h = \frac{V}{lw}$

d) $A = \frac{bh}{2}, b =$

$b = \frac{2A}{h}$

f) $I = PRT, P =$

$P = \frac{I}{RT}$