Ch. 1.1 Text Solutions

1. 8 printers per 2 computers $\Rightarrow \dfrac{8}{2} = \dfrac{4}{1}$

   3 ways, actually: $\boxed{\dfrac{4}{1} \ ; \ 4:1 \ ; \ 4 \text{ to } 1}.$

2. $\dfrac{55 \text{ words}}{1 \text{ min}} = \dfrac{2000 \text{ words}}{x \text{ mins}}$

   $55x = 2000 \Rightarrow \dfrac{55x}{55} = \dfrac{2000}{55}$

   $x = 36.4 \text{ mins.}$

   good enough! $\longrightarrow$ $\boxed{\text{approx. } 36 \text{ mins.}}$

   $*$ fyi... $0.4 \text{ mins} \times \dfrac{60 \text{ secs}}{1 \text{ min}} = 24 \text{ seconds}$ } so, really, it would take 36 mins. 24 secs.

3. a) $\dfrac{4 \text{ tires}}{15 \text{ mins}} = \dfrac{20 \text{ tires}}{x \text{ mins.}}$ $\qquad \left(5 \text{ trucks} = 20 \text{ tires} \right)$

   $4x = 300$

   $\boxed{x = 75 \text{ mins} \quad \text{or} \quad 1 \text{ hour } 15 \text{ mins}}$

   b) $\dfrac{4 \text{ tires}}{15 \text{ mins}} = \dfrac{2 \text{ tires}}{x \text{ mins}}$

   $4x = 30$

   $\boxed{x = 7.5 \text{ mins}}$

4. a) Let x = # of cars sold on Sat. & Sun.

$$4 + 6 + x + x = 36$$

$$10 + 2x = 36$$

$$2x = 26$$

$$x = 13 \Rightarrow 13 \text{ cars sold Sat.; 13 cars sold Sun.}$$

b) Proportion of cars sold Saturday = $\boxed{\dfrac{13}{36}}$ cannot reduce!

or $\boxed{13 : 36}$

5. Let x = Sin's height

$$\frac{5 \text{ cm}}{6 \text{ cm}} = \frac{x \text{ cm}}{145 \text{ cm}} \implies 6x = 725$$

$$\boxed{x = 121 \text{ cm} = \text{Sin's height}}$$

6. a) $\dfrac{\$2550}{200 \text{ DVDs}} = \dfrac{\$x}{50 \text{ DVDs}}$

$$200x = 127500$$

$$\boxed{x = \$637.^{50} \text{ for 50 DVDs}}$$

b) $\dfrac{\$2550}{200 \text{ DVDs}} = \dfrac{\$x}{900 \text{ DVDs}}$

$$200x = 2295000$$

$$\boxed{x = \$11\,475.^{00} \text{ for 900 DVDs}}$$

7. a) $\dfrac{\$15.00}{5 \text{ kg}} = \dfrac{\$75.^{00}}{x \text{ kg}} \implies 15x = 375 \implies \boxed{x = 25 \text{ kg} \ (5 \text{ jars})}$

b) $\dfrac{\$15.00}{5 \text{ kg}} = \dfrac{\$x}{20 \text{ kg}} \implies 5x = 300 \implies \boxed{x = \$60 \text{ for 20 kg}}$

8. $\dfrac{3 \text{ Span. Oak}}{4 \text{ Mahog.}}$ So, for every 7 L of stain, 3 L of Sp. Oak is used and 4 L of Mahog. is used

ie. $\dfrac{3}{7}$ Sp. Oak   and $\dfrac{4}{7}$ Mahog.

For 12 L :   Spanish Oak $= 12 \times \dfrac{3}{7} = \dfrac{36}{7} = \boxed{5.14 \text{ L}}$

Mahogany $= 12 \times \dfrac{4}{7} = \dfrac{48}{7} = \boxed{6.86 \text{ L}}$

9.   Let $x =$ total time to travel equator

$$\dfrac{30 \text{ km}}{6 \text{ mins}} = \dfrac{40074 \text{ km}}{x \text{ mins}} \Rightarrow 30x = 240444$$
$$x = 8014.8 \text{ mins.}$$

Convert 8 days to mins. :   * 24 hrs. per day
$ 60 mins. per hour

$8 \text{ days} \times \dfrac{24 \text{ hrs}}{\text{day}} \times \dfrac{60 \text{ mins}}{\text{hr}} = 11520 \text{ mins.}$

It can be done, thus Yuki is right!

OR: convert 8014.8 mins to days (divide by 60 and 24)

ie. $8014.8 \text{ mins} \times \dfrac{1 \text{ hrs}}{60 \text{ mins}} \times \dfrac{1 \text{ day}}{24 \text{ hrs}} = \underline{5.6 \text{ days}}$

Ch. 1.2 Solutions

1. $\dfrac{\$1053.00}{12\ \text{sinks}} = \dfrac{\$x}{1\ \text{sink}} \Rightarrow 12x = 1053$

$$\boxed{x = \$87.75 \text{ per sink}}$$

2. i) $\dfrac{\$19.99}{7\ kg} = \dfrac{\$x}{1\ kg} \Rightarrow 7x = 19.99 \Rightarrow x = \$2.86 \text{ per kg}$

ii) $\dfrac{\$35.95}{14\ kg} = \dfrac{\$x}{1\ kg} \Rightarrow 14x = \$35.95 \Rightarrow x = \$2.57 \text{ per kg}$

iii) $\dfrac{\$50.99}{21\ kg} = \dfrac{\$x}{1\ kg} \Rightarrow 21x = \$50.99 \Rightarrow \underline{x = \$2.43 \text{ per kg}}$

The 3rd package has the lowest unit cost

3. i) $\dfrac{\$120.00}{4\ \text{locks}} = \dfrac{\$x}{1\ \text{lock}} \Rightarrow 4x = 120 \Rightarrow \underline{x = \$30 \text{ per lock}}$

ii) $\dfrac{\$192.00}{6\ \text{locks}} = \dfrac{\$x}{1\ \text{lock}} \Rightarrow 6x = 192 \Rightarrow \$32 \text{ per lock}$

Supplier 1 has lowest cost.
Quality matters, however...

4. a) Pkg. of two: unit cost $\dfrac{\$15.49}{2\ \text{shirts}} = \dfrac{\$x}{1\ \text{shirt}} \Rightarrow 2x = \$15.49$

$$\boxed{x = \$7.75 \text{ per shirt}}$$

Pkg. of three: unit cost $\dfrac{\$22.99}{3\ \text{shirts}} = \dfrac{\$x}{1\ \text{shirt}} \Rightarrow 3x = 22.99$

$$\boxed{x = \$7.66 \text{ per shirt}}$$

b) Options: Seven single shirts (POOR) = $7 \times \$9.98 = \$69.86$

3 pkgs. of two $+ 1 = (3 \times \$15.49) + \$9.98 = \$56.45$

2 pkgs. of three $+ 1 = (2 \times \$22.99) + \$9.98 = \$55.96$

$\{$ 1 pkg. of three $+ 2$ pkgs. of $2 \} = (1 \times 22.99) + (2 \times \$15.49)$

$= \$53.97$ best !

5 a) i) $\dfrac{\$7.50}{0.5 \text{ kg}} = \dfrac{\$x}{1 \text{ kg}} \Rightarrow 0.5x = 7.50 \Rightarrow x = \$15.00/\text{kg}$

$\{500g = 0.5 kg\}$

ii) $\dfrac{\$12.50}{1 \text{ kg}} = \$12.50/\text{kg}$ (already a unit price)

iii) $\dfrac{\$19.50}{1.5 \text{ kg}} = \dfrac{\$x}{1 \text{ kg}} \Rightarrow 1.5x = 19.50 \Rightarrow x = 13.00/\text{kg}$

Option 2 is best.

b) Need 2.5 kg. Options:

5×0.5 kg portions $= 5 \times \$7.50 = \$37.50$ per 2.5 kg

2×1 kg $+ 1 \times 0.5$ kg $= (2 \times \$12.50) + \$7.50 = \$32.50$

$\boxed{1 \times 1.5 \text{ kg} + 1 \times 1 \text{ kg}} = (\$19.50 + \$12.50) = \$32.00$

Best !
option

6. $\boxed{250g = 0.25 kg}$

i) $\dfrac{\$4.25}{0.25 kg} = \dfrac{\$x}{1 kg} \Rightarrow 0.25x = 4.25 \Rightarrow x = \$17/kg$

ii) $\dfrac{\$7.95}{0.5 kg} = \dfrac{\$x}{1 kg} \Rightarrow 0.5x = \$7.95 \Rightarrow x = \$15.90/kg$

iii) $\dfrac{\$29.50}{2 kg} = \dfrac{\$x}{1 kg} \Rightarrow 2x = 29.50 \Rightarrow x = \underline{\$14.75/kg}$

Package 3 has lowest unit price!

But, Store from #5 is cheaper per kg.

7. Jason needs 250 kits. Assume max. of ranges given.

Find unit prices:

i) $\dfrac{\$42.50}{9 \text{ workers}} = \dfrac{\$x}{1 \text{ worker}} \Rightarrow 9x = 42.50 \Rightarrow x = \$4.72/\text{worker}$

ii) $\dfrac{\$58.25}{40 \text{ workers}} = \dfrac{\$x}{1 \text{ worker}} \Rightarrow 40x = \$58.25 \Rightarrow x = \$1.46/\text{worker}$

iii) $\dfrac{\$70.50}{75 \text{ workers}} = \dfrac{\$x}{1 \text{ worker}} \Rightarrow 75x = \$70.50 \Rightarrow \$0.94/\text{worker}$

Cheaper to buy bigger kits.

Best option? $\boxed{3 \text{ large kits } + 1 \text{ medium kit}}$

Total cost $= (3 \times 70.50) + (1 \times \$58.25)$

$\boxed{= \$269.75}$

Ch. 1.3 Text Solutions

$60\% = 0.60$

1. $\$22.75 \times 1.60 = \boxed{\$36.40 \text{ per shirt}}$

2. Alberta has no PST. GST = 5%

   (1 hard hat + 2 pair boots) × $\overset{TAX}{1.05}$

   $= [(1 \times \$49.95) + (2 \times \$129.95)] \times 1.05$

   $\boxed{= \$325.34}$

   Total GST paid $= \$325.34 - (1 \times \$49.95 + 2 \times \$129.95)$

   $\boxed{= \$15.49}$

3. Sask has 5% PST and 5% GST = 10% total tax.

   Mark-up of 10% as well:

   hard hat $= \$49.95 \times 1.10 = \$54.95$

   boots $= \$129.95 \times 1.10 = \underline{\$142.95}$

   1 of each $= \$197.90$

   Total incl. tax $= \$197.90 \times 1.10 = \boxed{\$217.68}$

4. Manitoba has 7% PST and 5% GST = 12% total tax

   Mark-up of 25%: Sink $= \$89.95 \times 1.25 = \$112.44$

   Tub $= \$639.95 \times 1.25 = \$799.94$

   Faucet $= \$74.95 \times 1.25 = \$93.69$

   1 sink, 1 tub, 2 faucets = $\$1099.76$ (w/o tax)

   total + tax $= \$1099.76 \times 1.12 = \boxed{\$1231.73}$

5.a). Total income = $(50 \times \$3.50) + (175 \times \$3.99) + (250 \times \$2)$

(in this case) $= \$1373.^{25}$

b) Direct @ farm: $100 \times \$3.50 = \underline{\$350}$

Wholesaler: $100 \times \$2 = \underline{\underline{\$200}}$

$\}$ $\$150$ difference in income

Why sell to Wholesaler? $\Rightarrow$ - larger demand/orders

- more consistent

6.a) $\$2.50 \times 1.15 = \boxed{\$2.^{88} \text{ per portion}}$

b) Lower price $= \$2.50 \times 100 = \$250$

Higher price $= \$2.^{88} \times 100 = \$288$

$\}$ $\boxed{\$38.^{00} \text{ more!}}$

c) - find less expensive ingredients

- bike to deliver

- practice to become more time efficient.

- put customers in headlocks, give them noogies, and make them pay.

7. See text for answer...

Remember, 1 kg = 1000 g, so 250 g = 0.25 kg or $\frac{1}{4}$ kg

8. 250 grams = $\frac{1}{40}$ of 10 kg

So...

$$\frac{\$175.00}{10\,kg} = \frac{\$x}{0.25\,kg} \Rightarrow 10x = \$43.75$$

$$x = \$4.38$$

At cost, 250 g is $4.38

a) Processing costs; storage costs, utilities costs etc...

b) 40% markup = $4.38 × 1.40 = $6.13 per 250 g

c) 15% discount = 0.15

$6.13 × 0.15 = $0.92 discount

new price = $6.13 - $0.92 = $5.21 per 250 g

d) Thinking only of the cheese, yes, you'd be making a profit as $5.21 is still higher than the $4.38 cost price.

Ch. 1.4 Text Solutions

1. a) Two packages will cost $\$5.89 + (\$5.89 \div 2)$

$$\boxed{= \$8.84}$$

b) $\$8.84$ with promotion

$(\$5.89 \times 2) = \$11.78$ without promotion

$\$11.78 - \$8.84 = \$2.94$ off

$$\text{Discount } \% = \frac{\$2.94}{\$11.78} = 0.25 = \boxed{25\%}$$

2. Alberta: 0% PST + 5% GST = 5% total tax

Ross' store: $\$49.95 \times 1.05 = \boxed{\$52.45}$

b) AL is right

Al's store: $\$55.95 \times 0.15 = \$8.39$ off

$\$55.95 - \$8.39 = \$47.56 \times 1.05 = \boxed{\$49.94}$
   tax

→ OR: $\$55.95 \times 0.85 = \$47.56$

85% of orig. price with the 15% discount.

3. a) Morning: $\$55.00 \times 0.85 = \$46.75$

Mid-afternoons Wed & Thurs.: $\$55.00 - \$5 = \$50.00$

} The morning price is better

b) Probably coupons as you don't have to perform any complex calculations. That said, after this course, you'll be able to find the best price.

4. No taxes!

i) Retail = $27.50 per m^2

$74 m^2$ = 74 × $27.50 = $2035.00 retail

Builder gets 20% discount; you get 50% of 20%
(ie. half of 20%)
(ie. 10%)

So, you receive a 10% discount

$2035.00 × 0.90 = $1831.50 is what you'll pay

ii) 16 hours × $36.00/hr = $576 before discount

With 5% discount: $576 × 0.95 = $547.20 for labor

Savings = $576 − $547.20 $28.80

OR $576 × 0.05 = $28.80

5. Alberta = 5% GST = 5% total tax

a) Store 1: $157.00 × 20 fans = $3140 × 0.95 = $2983   discount
   × 1.05
   = $3132.15

Store 2: $149.00 × 20 fans = $2980
   × 1.05 = $3129.00

b) Store 2 by $3.15 only.

6. a) Shirt: $31.99 - 19.99 = $12.00

$$\frac{\$12.00}{\$31.99} = 0.375 = \boxed{37.5\% \text{ discount}}$$

$\boxed{\text{OR}}: \dfrac{\$19.99}{\$31.99} = 0.625 = 62.5\% \text{ of orig. price}$

$$100\% - 62.5\% = \boxed{37.5\% \text{ discount}}$$

Shorts: $24.95 - $16.95 = $8

$$\frac{\$8}{\$24.95} = 0.321 = \boxed{32.1\% \text{ discount}}$$

Jacket: $49.99 - $24.99 = $25.00

$$\frac{\$25.00}{\$49.99} = 0.500 = \boxed{50\% \text{ discount}}$$

b) At orig. prices, cost = $31.99 + $24.95 + $49.99 = $106.93

At lower prices, cost = $19.99 + $16.95 + $24.99 = $61.93

Savings = $106.93 - $61.93 = $\boxed{\$45.00}$

Most money saved on jacket ($25)
↳ biggest discount.

7. Sask = 5% PST + 5% GST = 10% total tax

a) Reg. price = 55 hr. × $26.00/hr = $1430 × 1.10 = $\boxed{\$1573.00}$
                tax

Disc. price = 55 hr × $26.00/hr = $1430 × 0.95 = $1358.50 × 1.10
             disc.   tax

Savings = $1573 - $1494.35 = $\boxed{\$78.65}$ = $\boxed{\$1494.35}$

b) Reg. = 60 hr × $26/hr. = $1560 × 1.10 = $1716

Disc. = 60 hr × $26/hr = $1560 × 0.95 = $1482 × 1.10 = $1630.20

Savings = $1716 - $1630.20 = $85.80 ⟹ $85.80 - $78.65 = $\boxed{\$7.15}$

Ch. 1.5 Text Solutions

1. a) $1.64 CAD for one euro

   b) $0.13 CAD for one Hong Kong dollar

   c) $0.02 CAD for one Pakistan rupee.

2. a) 0.009295

   b) 0.950964

   c) 1.00435

3. → *use bank buying rate

   a) $\dfrac{1 \text{ peso}}{\$0.083443 \text{ CAD}} = \dfrac{4500 \text{ pesos}}{\$x \text{ CAD}} \Rightarrow x = \boxed{\$375.49 \text{ CAD}}$

   b) $\dfrac{1 \text{ H. Kong dollar}}{\$0.128451 \text{ CAD}} = \dfrac{25000 \text{ H. Kong dollars}}{\$x \text{ CAD}} \Rightarrow \boxed{x = \$3211.28 \text{ CAD}}$

   c) $\dfrac{1 \text{ euro}}{\$1.580814 \text{ CAD}} = \dfrac{2200 \text{ euros}}{\$x \text{ CAD}} \Rightarrow \boxed{x = \$3477.79 \text{ CAD}}$

   d) $\dfrac{1 \text{ Scottish pd.}}{\$1.996146 \text{ CAD}} = \dfrac{8545 \text{ Sc. pd.}}{\$x \text{ CAD}} \Rightarrow \boxed{x = \$17057.07 \text{ CAD}}$

4. Germany uses the euro.

   Megan will buy euros from bank

   $\dfrac{1 \text{ euro}}{\$1.644814 \text{ CAD}} = \dfrac{x \text{ euros}}{\$1200 \text{ CAD}}$ → use bank SELLING rate

   $1.644814 \, x = 1200$

   $\boxed{x = 729.57 \text{ euros}}$

5. a) $\dfrac{1 \text{ euro}}{\$1.644814 \text{ CAD}} = \dfrac{x \text{ euros}}{\$650 \text{ CAD}}$ $\Rightarrow$ $1.644814x = 650$

$$\boxed{x = 395.18 \text{ euros}}$$

b) $\dfrac{1 \text{ Swiss franc}}{\$1.017007 \text{ CAD}} = \dfrac{x \text{ Sw. francs}}{\$650 \text{ CAD}}$ $\Rightarrow$ $1.017007x = 650$

$$\boxed{x = 639.13 \text{ Swiss francs}}$$

c) $\dfrac{1 \text{ Swedish kronor}}{\$0.175558 \text{ CAD}} = \dfrac{x \text{ Sw. kronors}}{\$650 \text{ CAD}}$ $\Rightarrow$ $0.175558x = 650$

$$\boxed{x = 3702.48 \text{ Swedish kronors}}$$

* use bank selling rate

6. Pebble Beach: $\dfrac{\$1 \text{ US}}{\$1.038650 \text{ CAD}} = \dfrac{\$5000.00 \text{ US}}{\$x \text{ CAD}}$ $\Rightarrow$ $\boxed{x = \$5193.25 \text{ CAD}}$

St. Andrew's: $\dfrac{1 \text{ Scot. pound}}{\$2.060146 \text{ CAD}} = \dfrac{\pounds 8500 \text{ pds}}{\$x \text{ CAD}}$ $\Rightarrow$ $\boxed{x = \$17511.24 \text{ CAD}}$

Spring City: $\dfrac{1 \text{ yuan}}{\$0.1626 \text{ CAD}} = \dfrac{26\,600 \text{ yuan}}{\$x \text{ CAD}}$ $\Rightarrow$ $\boxed{x = \$4325.16 \text{ CAD}}$

SAFRA: $\dfrac{1 \text{ Sing. dollar}}{\$0.762280 \text{ CAD}} = \dfrac{15000 \text{ Sing. dollar}}{\$x \text{ CAD}}$ $\Rightarrow$ $\boxed{x = \$11434.20 \text{ CAD}}$

Leopoldsdorf: $\dfrac{1 \text{ euro}}{\$1.644814 \text{ CAD}} = \dfrac{4000 \text{ euros}}{\$x \text{ CAD}}$ $\Rightarrow$ $\boxed{x = \$6579.26 \text{ CAD}}$

$$\boxed{\text{TOTAL} = \$45043.11}$$

which, is quite LUDICROUS!

7.a) Using chart on <u>p.45</u> ; use buying rate as you'll be selling foreign currency to the bank to get CAD.

$$\frac{\$1 \ US}{\$1.00435 \ CAD} = \frac{\$x \ US}{\$8.95 \ CAD} \Rightarrow 1.00435x = 8.95$$

$$\boxed{x = \$8.91 \ in \ US}$$

$$\frac{\$1 \ Austr.}{\$0.950964 \ CAD} = \frac{\$x \ Austr.}{\$8.95 \ CAD} \Rightarrow 0.950964x = 8.95$$

$$\boxed{x = \$9.41 \ in \ Australia}$$

b) $\$1 \ US = \$1.00435 \ CAD$ so... add $1.00 to US price

$$\boxed{\$9.91 \ in \ US}$$

$$\frac{\$1 \ Austr.}{\$0.950964 \ CAD} = \frac{\$x \ Austr.}{\$2 \ CAD} \Rightarrow 0.950964x = 2$$

$$x = {}^{Aus}\$2.10 \ to \ add$$

$$\$9.41 \ Aus + \$2.10 \ Aus = \boxed{\$11.61 \ Aus}$$

1a) Mental math: i) 80 km in 1 hour

x km in $\frac{1}{2}$ hour

half distance in half time = $\boxed{40 \text{ km}}$

ii) 80 km in 1 hour

x km in 2.5 hrs.

2.5 × the distance in 2.5 × the time = 80 × 2.5

$\boxed{= 200 \text{ km}}$

b) 1 euro = $1.59 CAD

10 euros = 10 × $1.59 CAD = $\boxed{\$15.90 \text{ CAD}}$

2. For every 4 loaves sold, 3 are white and 1 is whole wheat ⟹ 3× more white sold

100 whole wheat sold per day

3 × 100 = $\boxed{300 \text{ white per day}}$

3.a) $\dfrac{30 \text{ m}}{4 \text{ s}} = \dfrac{x \text{ m}}{1 \text{ s}}$ ⟹ $4x = 30$ ⟹ $\boxed{x = 7.5 \text{ m/s}}$

b) $\dfrac{\$2.80}{1 \text{ dozen}} = \dfrac{\$2.80}{12 \text{ eggs}} = \dfrac{\$x}{1 \text{ egg}}$ ⟹ $12x = 2.80$

$\boxed{x = \$0.23/\text{egg}}$

4.i) To enlarge a 4" x 6" photo, each change of length and width must be proportionally equal.

ie. to enlarge by 1.5x, the new size would be $\left(4" \times 1.5 = 6" \right) \times \left(6" \times 1.5 = 9" \right)$

$$6" \times 9"$$

4" x 6" to become 5" x 7"

4" to 5" is a $1\frac{1}{4} = 0.25x$ change
6" to 7" is a $1\frac{1}{6} = 1.17x$ change $\Big\}$ not equal

* not possible

4" x 6" to become 8" x 10"

4" to 8" is a 2x change
6" to 10" is a $1\frac{4}{6} = 1\frac{2}{3} = 1.67x$ change $\Big\}$ not equal

* not possible

ii) Reducing 8" x 10" has <u>various</u> <u>answers</u>.

Reduce by 0.5 $= 8" \times 0.5 = 4"$
$ 10" \times 0.5 = 5"$ $\Big\}$ 4" x 5"

etc...

5. a) 5 lb. bag: $\dfrac{\$1.89}{5\,lbs} = \dfrac{\$x}{1\,lb}$ $\Rightarrow$ $5x = 1.89$

$$\boxed{x = \$0.38/lb}$$

20 lb. bag: $\dfrac{\$5.99}{20\,lbs.} = \dfrac{\$x}{1\,lb.}$ $\Rightarrow$ $20x = 5.99$

$$\boxed{x = \$0.30/lb}$$

$\{$ 20 lb. bag is a better deal $\}$

b) Quality of product / packaging / etc...

Amount you'll actually use

Type of potato: Baker's, Red, White, Yellow etc...

c) $\dfrac{\$15.00}{75\,lbs.} = \dfrac{\$x}{1\,lb}$ $\Rightarrow$ $75x = 15$ $\Rightarrow$ $x = \$0.20/lb.$

Better price, but will you use 75 lbs. of potatoes?

6. Krazy Krazy: $\$1299.99 - \$300 = \underline{\underline{\$999.99}}$ (no tax)

Too Good: $\$1299.99 \times 0.70 = \$909.99 \times 1.05$ (GST)

$$= \underline{\underline{\$955.49}}$$

$\boxed{* \text{Best deal at Too Good to be True.}}$

7. a) $\dfrac{2.5 \text{ cups flour}}{0.5 \text{ cup sugar}} = \dfrac{x \text{ cups flour}}{1 \text{ cup sugar}}$

$0.5x = 2.5$

$\boxed{x = 5 \text{ cups flour}}$

b) For every 3 cups, $2\frac{1}{2}$ cups are flour
   and $\frac{1}{2}$ cup is sugar

$\dfrac{8 \text{ scones}}{12 \text{ scones}} = \dfrac{2}{3}$ You want $\frac{2}{3}$ of the recipe
   (ie. $\frac{2}{3}$ of the 3 cups used)

$\dfrac{2}{3} \times 3 \text{ cups} = \dfrac{6}{3} = 2 \text{ cups total}$ flour and sugar

$\dfrac{2\frac{1}{2} \text{ cups flour}}{3 \text{ total cups}} = \dfrac{x \text{ cups flour}}{2 \text{ total cups}}$

$5 = 3x$

$x = \dfrac{5}{3} = \boxed{1\frac{2}{3} \text{ cups flour}}$

$\underset{\substack{\text{total} \\ \text{cups}}}{2} - \underset{\substack{\text{cups} \\ \text{flour}}}{1\frac{2}{3}} = \boxed{\dfrac{1}{3} \text{ cup sugar}}$

8a) $\dfrac{1.00 \text{ euro}}{\$1.59 \text{ CAD}} = \dfrac{500 \text{ euros}}{\$x \text{ CAD}}$

$\boxed{x = \$795.00 \text{ CAD}}$

b) $\$795.^{00} \times 1.005 = \boxed{\$798.98 \text{ CAD}}$
  (handling fee)

9. $\dfrac{€28.92}{1 m} = \dfrac{€ x}{15 m} \Rightarrow x = €433.80 \quad \text{for the COTTON}$

$\dfrac{€9.95}{1 m} = \dfrac{€ x}{40 m} \Rightarrow x = €398.00 \quad \text{for the FLEECE}$

TOTAL $\quad €831.80 \text{ euros}$

$\dfrac{\$1 \text{ CAD}}{€0.6478 \text{ euros}} = \dfrac{\$x \text{ CAD}}{€831.80 \text{ euros}} \Rightarrow 0.6478x = 831.80$

$\boxed{x = \$1284.04 \text{ CAD}}$

10. a) $28.50 for 3 hrs.

1 hr would be $\frac{1}{3}$ of $28.50

$\dfrac{27}{3} = 9 \qquad \dfrac{1.50}{3} = 0.50 = \boxed{\$9.50/hr}$

b) see text

c) see text

d) see text.