

ID: A

Tax Rates		
	PST	GST
Alberta	0%	5%
British Columbia	HST 12%	
Manitoba	7%	5%
Northwest Territories	0%	5%
Nunavut	0%	5%
Saskatchewan	5%	5%
Yukon	0%	5%

ID: A

Name: _____

ID: A

5. Georgia owns a retail clothing store. She buys jeans, shirts, and hats at wholesale prices and then sells them at the retail prices shown below. What is the markup on each item, as a percent?

Item	Wholesale Price	Retail Price	Markup
Jeans	\$40.00	\$48.00	
Shirt	\$15.00	\$18.00	
Hat	\$25.00	\$28.75	

6. The following table shows the wholesale price, retail price, markup, and cost to the customer including tax, of tools at a hardware store. Complete the missing information.

Item	Wholesale Price	Retail Price	Markup	Cost to customer including 12% HST
Laser level	\$40.85		86%	\$85.10
Jigsaw		\$199.99	62%	
Circular saw	\$74.99	\$119.98		
Orbital sander		\$89.99	75%	

7. A store sells 25 board games for \$53.95 each.
- How much more money would the store make if it sold the same number of board games for \$58.95 each?
 - What would be the percent increase in price?
 - Why might the store not want to increase the price of its board games?

1.3 Practice Answer Section

MULTIPLE CHOICE

- | | | | |
|--|----------------------|---------------------------------------|----------|
| 1. ANS: A
OBJ: Number
KEY: Markup | PTS: 1
LOC: N-SO1 | DIF: Easy
TOP: Setting a Price | REF: 1.3 |
| 2. ANS: A
OBJ: Number
KEY: Tax | PTS: 1
LOC: N-SO1 | DIF: Easy
TOP: Setting a Price | REF: 1.3 |
| 3. ANS: D
OBJ: Number
KEY: Tax | PTS: 1
LOC: N-SO1 | DIF: Easy
TOP: Setting a Price | REF: 1.3 |
| 4. ANS: A
OBJ: Number
KEY: Tax | PTS: 1
LOC: N-SO1 | DIF: Easy
TOP: Setting a Price | REF: 1.3 |
| 5. ANS: D
OBJ: Number
KEY: Tax | PTS: 1
LOC: N-SO1 | DIF: Moderate
TOP: Setting a Price | REF: 1.3 |
| 6. ANS: C
OBJ: Number
KEY: Markup | PTS: 1
LOC: N-SO1 | DIF: Easy
TOP: Setting a Price | REF: 1.2 |
| 7. ANS: C
OBJ: Number
KEY: Markup | PTS: 1
LOC: N-SO1 | DIF: Easy
TOP: Setting a Price | REF: 1.3 |
| 8. ANS: B
OBJ: Number
KEY: Tax | PTS: 1
LOC: N-SO1 | DIF: Easy
TOP: Setting a Price | REF: 1.3 |
| 9. ANS: C
OBJ: Number
KEY: Tax | PTS: 1
LOC: N-SO1 | DIF: Easy
TOP: Setting a Price | REF: 1.3 |
| 10. ANS: A
OBJ: Number | PTS: 1
LOC: N-SO1 | DIF: Easy
TOP: Setting a Price | REF: 1.3 |
| 11. ANS: B
OBJ: Number
KEY: Markup | PTS: 1
LOC: N-SO1 | DIF: Moderate
TOP: Setting a Price | REF: 1.3 |
| 12. ANS: A
OBJ: Number
KEY: Markup | PTS: 1
LOC: N-SO1 | DIF: Easy
TOP: Setting a Price | REF: 1.3 |

PROBLEM

1. ANS:

Calculate how much it costs Cynthia to buy one comic book.

$$\$700.00 \div 425 = \$1.65$$

It costs her \$1.65 for one comic book.

Calculate her markup on one comic book.

$$0.90 \times \$1.65 = \$1.48$$

Calculate how much she will charge the customer.

$$\$1.48 + \$1.65 = \$3.13$$

She will charge \$3.13 for one comic book.

PTS: 1

DIF: Easy

REF: 1.3

OBJ: Number

LOC: N-SO1

TOP: Setting a Price

KEY: Markup

2. ANS:

Item	Retail Price	Wholesale Price
Hockey Stick	\$87.54	\$54.71
Tennis Racket	\$20.60	\$12.88
Soccer Ball	\$78.48	\$49.05

The wholesale price is calculated as:

$$\text{Wholesale price} = \frac{\text{Retail price}}{1 + (\text{Markup as a decimal})}$$

$$\text{Hockey stick} = \frac{\$87.54}{1.6}$$

$$\text{Hockey stick} = \$54.71$$

$$\text{Tennis racket} = \frac{\$20.60}{1.6}$$

$$\text{Tennis racket} = \$12.88$$

$$\text{Soccer ball} = \frac{\$78.48}{1.6}$$

$$\text{Soccer ball} = \$49.05$$

PTS: 1

DIF: Moderate

REF: 1.3

OBJ: Number

LOC: N-SO1

TOP: Setting a Price

KEY: Markup

3. ANS:

Calculate the retail price of the berries.

new retail price = increased wholesale price \times (1 + markup as a decimal)

new retail price = $\$4.19 \times (1 + 0.50)$

new retail price = $\$6.29/L$

The new retail price will be $\$6.29/L$.

PTS: 1

DIF: Moderate

REF: 1.3

OBJ: Number

LOC: N-SO1

TOP: Setting a Price

KEY: Markup

4. ANS:

a) Calculate the retail price of berries.

retail price = old wholesale price \times (1 + markup as a decimal)

retail price = $\$2.99 \times (1 + 0.30)$

retail price = $\$3.89/L$

The retail price of berries is $\$3.89/L$.

b) Subtract the new wholesale price from the retail price and divide by the wholesale price.

$$\frac{\$3.89 - \$3.59}{\$3.59} = 8.36\%$$

The markup on the berries is 8.36%.

PTS: 1

DIF: Moderate

REF: 1.3

OBJ: Number

LOC: N-SO1

TOP: Setting a Price

KEY: Markup

5. ANS:

Item	Wholesale Price	Retail Price	Markup
Jeans	\$40.00	\$48.00	20%
Shirt	\$15.00	\$18.00	20%
Hat	\$25.00	\$28.75	15%

The markup is calculated as:

$$\text{markup} = \frac{\text{retail price} - \text{wholesale price}}{\text{wholesale price}} \times 100$$

PTS: 1

DIF: Moderate

REF: 1.3

OBJ: Number

LOC: N-SO1

TOP: Setting a Price

KEY: Markup

6. ANS:

Item	Wholesale Price	Retail Price	Markup	Cost to customer including 12% HST
Laser level	\$40.85	\$75.98	86%	\$85.10
Jigsaw	\$123.45	\$199.99	62%	\$223.99
Circular saw	\$74.99	\$119.98	60%	\$134.38
Orbital sander	\$51.42	\$89.99	75%	\$100.79

Laser level retail price = wholesale price \times (1 + markup as a decimal)

Laser level retail price = $\$40.85 \times 1.86$

Laser level retail price = \$75.98

Jigsaw wholesale price = retail price \div (1 + markup as a decimal)

Jigsaw wholesale price = $\$199.99 \div 1.62$

Jigsaw wholesale price = \$123.45

Jigsaw cost including tax = retail price \times (1 + tax as a decimal)

Jigsaw cost including tax = $\$199.99 \times 1.12$

Jigsaw cost including tax = \$223.99

Circular saw markup = (retail price – wholesale price) \div wholesale price \times 100

Circular saw markup = $(\$119.98 - \$74.99) \div \$74.99 \times 100$

Circular saw markup = 60%

Circular saw cost including tax = retail price \times (1 + tax as a decimal)

Circular saw cost including tax = $\$119.98 \times 1.12$

Circular saw cost including tax = \$134.38

Orbital sander wholesale price = retail price \div (1 + markup as a decimal)

Orbital sander wholesale price = $\$89.99 \div 1.75$

Orbital sander wholesale price = \$51.42

Orbital sander cost including tax = retail price \times (1 + tax as a decimal)

Orbital sander cost including tax = $\$89.99 \times 1.12$

Orbital sander cost including tax = \$100.79

PTS: 1

DIF: Difficult

REF: 1.3

OBJ: Number

LOC: N-SO1

TOP: Setting a Price

KEY: Markup | Tax

7. ANS:

- a) Calculate the difference in price for one game.

$$\$58.95 - \$53.95 = \$5.00$$

Calculate how much more the store would make by selling 25 games at the increased price.

$$25 \times \$5.00 = \$125.00$$

The store would make \$125.00 more by increasing the price.

- b) Divide the difference in price by the original cost and multiply by 100 to find the percent increase.

$$\frac{\$5.00}{\$53.95} \times 100 = 9.3\%$$

- c) Answers will vary. The store might not want to increase the price because they may not sell as many games.

PTS: 1

DIF: Moderate

REF: 1.3

OBJ: Number

LOC: N-SO1

TOP: Setting a Price

KEY: Moderate