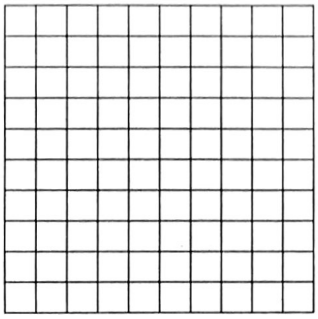
Skills Practice 4: Percent

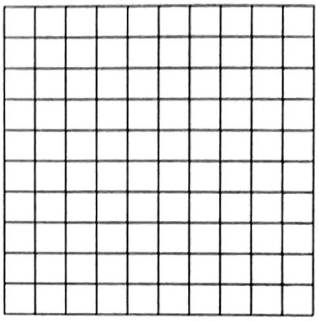
- Percent means "out of 100."
- 75% means "75 out of 100" or $\frac{75}{100}$.

1. Each grid contains 100 squares.
Shade in the number of squares that represent each percent.

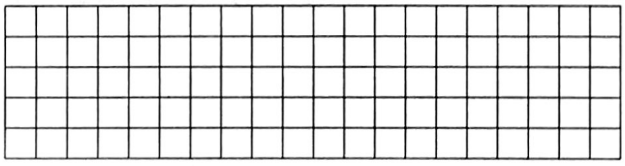
a) 10%



b) 5%



c) 1%



2. Write each percent as a fraction out of 100.

a) $50\% = \frac{\square}{100}$ **b)** $62\% = \frac{\square}{100}$ **c)** $25\% = \frac{\square}{100}$

- To change a percent to a decimal, divide by 100.
  $45\% = 45 \div 100$
  $= 0.45$

3. Change each percent to a decimal.

a) 35% **b)** 16% **c)** 80%

4. Complete the table to practise converting between percents, decimals, and fractions.

Percent	Decimal	Fraction
a) 30%		$\frac{30}{100}$
b) 75%		
c)	0.40	
d)		$\frac{18}{100}$

Name _____

1.5 Tax Not Included

Focus: calculating percent, estimating tax

Warm Up

1. Calculate.

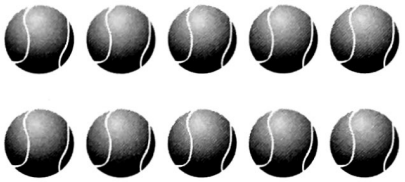
a) 10% of 65 = _____

b) 10% of 32 = _____

c) 10% of 140 = _____

2. Describe a quick way to find 10% of a number.

3. a) How many tennis balls are shown?



b) You give half of these to a friend. How many does your friend get?

4. Evaluate.

a) $\frac{1}{2}$ of 24 = _____

b) $\frac{1}{2}$ of 18 = _____

c) $\frac{1}{2}$ of 60 = _____

d) $\frac{1}{2}$ of 13 = _____

e) $\frac{1}{2}$ of 10.50 = _____

Estimating Tax

What does **taxable** mean?

- Most items that you purchase are **taxable**.
- In some situations, you may need to *estimate* the tax before you pay.

1. a) Decide whether each of the items below should be taxable or not taxable. Circle your answer.

Bread	taxable	not taxable
Skateboard	taxable	not taxable
Milk	taxable	not taxable
Fast food	taxable	not taxable

b) Write your reasons for the choices you made.

_____

_____

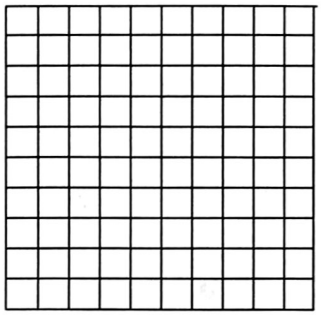
Name _____

2. In Ontario, you pay HST on most items you purchase.

a) HST stands for _____.

b) The current HST rate is _____ %.

c) Shade in this amount of the hundreds chart.



3. **a)** The HST on $1 is _____.

b) The HST on $2 is _____.

c) The HST on $3 is _____.

4. **a)** The HST on $10 is _____.

b) The HST on $20 is _____.

c) The HST on $30 is _____.

5. **a)** The HST on $100 is _____.

b) The HST on $200 is _____.

c) The HST on $300 is _____.

- You want to buy a shirt that costs $12.99. You have $15.00.

6. How might you estimate the HST on $12.99?

7. Will you have enough money to pay for the shirt once HST is added?

YES NO

Show how you know.

Name _____

Two methods for estimating HST follow:
Suppose an item costs $48.99.

Method 1: Add 10% and 5%

Step 1: Round the price to a convenient amount. $50.00

Step 2: Determine 10% of the rounded price. $5.00

Step 3: Determine 5% of the rounded price by finding $\frac{1}{2}$ of the amount in step 2.
$\frac{1}{2}$ of $5 = $2.50 $2.50

Step 4: Estimate the HST by adding your answers from step 2 and step 3.
$5.00 + $2.50 = $7.50 $7.50

Method 2: Add 10% and 1%s

Step 1: Round the price to an easy amount. $50.00

Step 2: Determine 10% of the rounded price. $5.00

Step 3: Determine 1% of the rounded price.
1% of $50 = $0.50 $0.50

Step 4: Add the amount from Step 2 and the required amounts from Step 3 to find the HST.
If the HST rate is 13%, you need 3 × 1% of the price.
$5.00 + $0.50 + $0.50 + $0.50 = $6.50 $6.50

8. a) Use Method 1 to estimate the HST on the shirt in #6.

b) Use Method 2 to estimate the HST on the shirt in #6.

c) Which method do you prefer? _____

9. Estimate the HST you would pay for each item listed below.

Item	Price	Rounded Price	Estimated HST	Total Estimated Price
a) Headphones	$39.15			
b) T-shirt	$8.99			
c) Shoes	$39.79			
d) Video game	$79.25			

10. Choose 5 items from a flyer. Estimate the HST you would pay for each item.

Item	Price	Rounded Price	Estimated HST
a)			
b)			
c)			
d)			
e)			

☑ Check Your Understanding

Explain how to estimate the HST on an item priced at $119.