Problem 1

How do you represent 10% as a fraction?

(A) $\frac{10}{1} = 10$

(B) $\frac{1}{2} = 0.5$ ($00.50)

(C) $\frac{1}{100} = 0.01$

(D) $\frac{1}{10} = 0.1 = \frac{10}{100}$

$15/hr → $\frac{\$15}{1hr}$

10% → "percent" → "per cent"

$(10 / 100) = \frac{10}{100} = 0.1$

$= \frac{10 \div 10 = 1}{100 \div 10 = 10}$

- Reducing fractions
- Common denominator
- greatest common factor
  - $1 \times 10 = 10$, $2 \times 5 = 10$ } 1, 2, 5, 10

107%, 13%, 5.5%

Problem 2

How do you represent 10% as a decimal?

(A) 0.10

(B) 1.0

(C) 0.001

(D) 10.0

$7.00 $7.00

10% → $\frac{10}{100}$ → $\frac{10.0}{100}$

"move the decimal 2 places to the left"

10.0

0.10 = 0.1

13 → 13.0 → 13.00

200 → 200.00 → $200.00

10 → 10.0

Problem 3

There is a shirt you want that costs $12.00. Volusia County sales tax is 6.5%. How much will the tax be?

$12.78 total

(A) $0.12 "1% of $12 is 0.12"

(B) $1.20

(C) $0.78

(D) $7.80 "50% of $12 is $6"

0.5 × 12 = 6

$12.00

6.5% tax

$\frac{6.5}{100} = 0.065$

0.6.5 = 0.065

[0.065 × 100 = 6.5%]

% → per 100 → out of 100 → over 100 → $\frac{\bullet}{100}$

"2 places to the left" - 2 places bc 2 zeros in 100 - to the left, bc division

[0.065 of $12.00 → of = multiply (×, •, (2)3 → mult. notation)

6.5% of 12 is ?

is = equals

? = unknown, possible answer, variable

per = division, fraction $\frac{1}{1}$

0.065 × 12 = X

0.78 = X

X = 0.78

12% → 0.12

12 = 12.00 = 12.0 = 12.00...

12.0%

3.2%

0.05% 10017.

Problem #1

- Representing a percentage as a fraction

$10\% = \frac{10}{100} = 10/100$, $7.5\% = \frac{7.5}{100}$, $0.002\% = \frac{0.002}{100}$

$\% \rightarrow$ percent $\rightarrow$ per 100 $\rightarrow \frac{\bullet}{100}$

- Are there other fractions?

$10\% \rightarrow \frac{10}{100} = \frac{1}{10}$? (lowest terms)

$20\% \rightarrow \frac{20}{100} = \frac{20 \div 20}{100 \div 20} = \frac{1}{5} =$

$\frac{20}{100} = \frac{20 \div 5}{100 \div 5} = \frac{4}{20}$

$\frac{4}{20} = \frac{X}{100}$, $X = 20$ (×5 / ×5)

EX: $\frac{3}{4}$ (0.75), 0.25, 50% (0.50), 1.5, $\frac{3}{8}$

List in order, from smallest to largest

0.25 (smallest) 3/8 50% 3/4 1.5 (largest)

- 0.25 and 1.5 are both decimals
  $0.25 < 1.5$ * inequality signs
  ↳ "less than"

- Convert $50\% \rightarrow 0.50$
- Convert $\frac{3}{4} \rightarrow 0.75$

"$\frac{3}{4}$ of a tank"
"3 quarters of a tank"
"1/4 of a tank"
quarter of a tank

TOPICS TO REVIEW:

* Reducing fractions
* Factors of 20: 1, 2, 4, 5, 10, 20
  20: $1 \times 20 = 20$ ✓
  $2 \times 10 = 20 = 10 \times 2$ ✓
  $5 \times 4 = 20$
  $20 \times ? = 20$?
* Greatest common factor
* Commutative Property
* Cross multiply

- $\frac{3}{8}$ is less than 50%.
- $\frac{4}{8} = \frac{1}{2} \rightarrow 50\%$
- $\frac{3}{8} \boxed{>} 0.25 = \frac{1}{4} = \frac{2}{8}$ (> "greater", < "less", =)

"$\frac{3}{8}$ is more than a quarter"

3.2%

- Moving the decimal
- Convert to a fraction, calculator

– Moving the decimal –

3.2%

① 3.2 divided by 100
② Move decimal to the left
*WHY? Division
③ Move 2 places to the left
*WHY? 2 zeros in 100

0.03.2 → 0.032

– Convert to fraction (calculator) –

3.2%

① $\frac{3.2}{100}$ ② 0.032

107%, 13%, 5.5%

[% → dividing by 100]

107% "107 percent"
107 divided by 100
107 ÷ 100
107 / 100
$\frac{107}{100}$

percent → per cent
per 100

0.7%
22%
5000%

13% → $\frac{13}{100}$

5.5% → $\frac{5.5}{100}$

Problem 4

Including tax, what is the total amount you'll pay for the shirt in problem #3?

(A) $12.12

(B) $12.00

(C) $13.78

(D) $12.78

Problem 5

Yesterday, Rashed went to the grocery store to buy a few things. Some items were taxed at 6.5%, and some items were not taxed.

Water	$2.99	not taxed
6 x Apples	$0.75	not taxed
2x Paper Towels	$4.99	taxed
Soup	$2.00	not taxed
Socks	$5.50	taxed
Birthday Card	$1.99	taxed

How much tax did Rashed end up paying?

(A) $1.18

(B) $8.11

(C) $0.81

(D) $0.65

What was the total amount that Rashed spent at the store?

(A) $19.03

(B) $18.22

(C) $17.41

(D) $19.40

*Ignoring tax/not taxed

- What is your total w/ a 22% discount

① • 6 apples ⟹ $4.50 (0.75 × 6)
• 2 paper towels ⇒ $9.98 (2 × 4.99)

② Adding up the cost of all items

$26.96

③ 22% Discount of our total bill

22% = 0.22 * $26.96 = $5.93

$\frac{22}{100}$

What is 22% of 26.96? 5.93

5.93 = 0.22 × 26.96
5.93 = X • 26.96

④ Apply the discount: Total - 22% discount

26.96 − 5.93 = 21.03

$21.03