1)Bell Ringer: p. 131

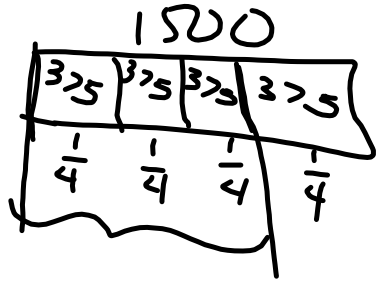
2) Go over homework
p.115(1-4)

3) Day 2: Multi Step ratio problems

4) Homework: p. 116 (5-7)

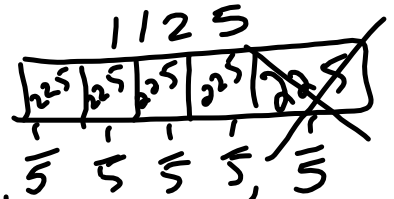
Oct 11-8:46 AM

1) $1500 \times \frac{3}{4} = 1,125$



$$\begin{array}{r} {}^{2}3\overset{1}{7}5 \\ \times\ 3 \\ \hline 1125 \end{array}$$

2) $1125 \times \frac{4}{5} = 900$



$\frac{4}{5}$

$$\begin{array}{r} 225 \\ \times\ 4 \\ \hline 900 \end{array}$$

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Example 3: Tax Time

As part of a marketing ploy, some businesses mark up their prices before they advertise a sales event. Some companies use this practice as a way to entice customers into the store without sacrificing their profits.

A furniture store wants to host a sales event to improve their profit margin and to reduce their tax liability before their inventory is taxed at the end of the year.

How much profit will be business make on the sale of a couch that is marked-up by $\frac{1}{3}$ and then sold at a $\frac{1}{5}$ off discount if the original price is $2400?

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Example 4: Born to Ride

A motorcycle dealer paid a certain price for a motorcycle and marked it up by $\frac{1}{5}$ of the price he paid. Later he sold it for $14,000 what is the original price?

$1 + \frac{1}{5} = 1\frac{1}{5}$

original + mark up = selling price

14000

$14000 \div 6 = 2333.33$

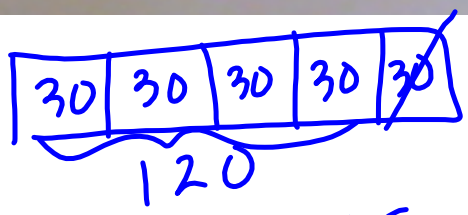
$2333.33 \times 5 = \$11666.67$

$y = 1\frac{1}{5}x$

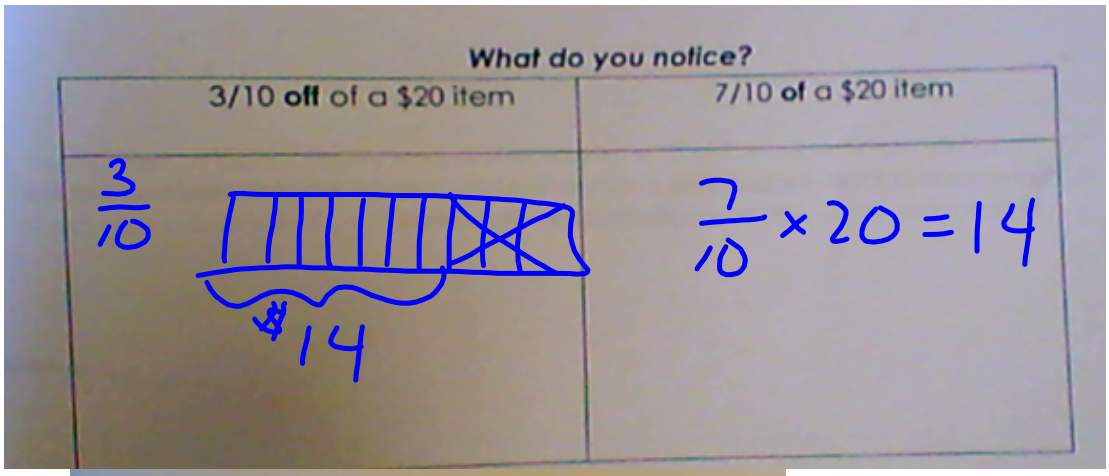
orig x	selling price y
\$11666.67	14000

$\div \frac{1}{5}$

Jim wants to buy an IPod Nano that costs $150. The store is having a sale for 1/5 off. If he has $125 in his wallet, does he have enough to make this purchase? Justify your answer. (Show each step.)



$150 \times \frac{4}{5} = 120$



What operation is represented by the word "off"? subtract

What operation is represented by the word "of"? multiply

Oct 11-10:08 AM

Lesson Summary:

- Discount price = original price – rate × original price OR (1 - rate) × original price
- Commission = rate × total sales amount
- Markup price = original price + rate × original price OR (1 + rate) × original price

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Homework

1. What is $\frac{1}{32}$ commission of sales totaling $24,000?

$24000 \times \frac{1}{32} = \$750$

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2. DeMarkus says ~~that a~~ store overcharged him on the ~~price of the~~ video game he bought. He thought that the price was marked $\frac{1}{4}$ **of** the original price, but it was really $\frac{1}{4}$ **off** the original price. He misread the advertisement. If the original price of the game was $48, then what was the difference between the price that DeMarkus thought he should pay and the price that the store charged him?

$48 \times \frac{1}{4} = 12$

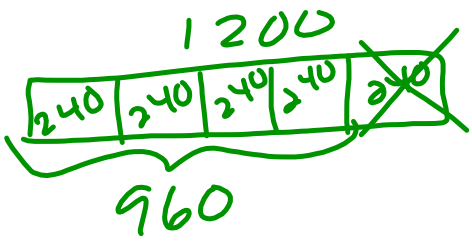
48

12 | 12 | 12 | 12

36

$$\begin{array}{r} 36 \\ -\ 12 \\ \hline 24 \end{array}$$

3. What is the cost of a $1200 washing machine that was on sale for a $\frac{1}{5}$ discount?



$1200 \times \frac{4}{5} = 960$

4. If a store advertised a sale that gave customers a $\frac{1}{4}$ discount, what is the fraction part of the original price that the customer will pay?

$1 - \frac{1}{4} = \frac{3}{4}$

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5. Mark bought an electronic tablet on sale for $\frac{1}{4}$ off its original price of $825.00. He also wanted to use a coupon for a $\frac{1}{5}$ off the sales price. Before taxes, how much did Mark pay for the tablet?

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6. A car dealer paid a certain price for a car and marked it up by $\frac{7}{5}$ of the price he paid. Later he sold it for $24,000 what is the original price?

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7. Joanna ran a mile in physical education class. After resting for one hour, her heart rate was 60 beats per minute. If her heart rate decreased by $\frac{2}{5}$, what was her heart rate immediately after she ran the mile?

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