

SHOW YOUR WORK FOR CREDIT!

Section 1: Fractions / Decimals / Percentages.
Complete the table below.

[1 Point Per Blank]

Fraction	Decimals	Percentages
$\frac{7}{8}$		
	0.065	
		48 %
$\frac{5}{2}$		
	0.9	
		0.5 %
	0.01	
$\frac{3}{20}$		
		15 %

Section 2: Percentage Problems – Missing Items

[4 Points Each]

1.) What is 87% of 245?

2.) 472 is what percentage of 825?

3.) 6% of what number is 80?

4.) What is 3% of 345?

5.) What percentage of 23 is 1?

6.) 45 is 90% of what number?

7.) What number is 4.5% of 800?

8.) 300 is what percentage of 725?

9.) What is 4% of 54?

10.) 80 is what percentage of 85?

Section 3: Percentage Word Problems

[4 Points Each]

SHOW YOUR WORK!

- 11.) Erin buys a calculator that has a cost of \$15.99. At the register, she pays 6.5% tax. How much tax does she pay?

- 12.) Mark goes to the mall and sees a new pair of shoes regularly priced at \$79 on sale for 22% off. How much would the shoes cost Mark if he buys them on sale?

- 13.) Tony goes to dinner, and his bill comes to \$20. If he wants to tip the waitress 18%, how much does the dinner cost him overall?

- 14.) A magazine subscription costs \$24.95. Buying the subscription today saves you 10%. How much would you save on the magazine subscription if you bought it today?

- 15.) Dan buys a new watch, regularly priced at \$59.99. How much would the watch cost him if he needs to pay an 8% shipping fee?

Section 3: Percentage Word Problems

[8 Points Each]

- 16.)** A new car has a sticker price of \$22,895. Fred decides to buy this car. He gets a 12% customer loyalty discount, but needs to pay 7% in taxes and fees. How much would Fred need to pay for the car?

- 17.)** Sarah buys a new book. The book has a sticker price of \$29.99. It is on sale for 5% off, and Sarah gets an additional 12% off for being a regular customer at the store. How much does the book cost her?

- 18.)** Trevor buys a new pair of jeans online. They are priced at \$34.99, but he needs to pay 6.5% for taxes and an additional 4% for shipping. How much would the jeans cost him?

Section 4: Ratio Problems

[4 Points Each]

SET UP YOUR RATIOS – WITH LABELS – FOR FULL CREDIT

19.) The ratio of men to women in an auditorium is 5 to 3. If there are a total of 1952 people in the auditorium, how many are women?

20.) For every 5 mph over the speed limit a car travels, there is a \$12 fine. If a car was going 45 mph over the speed limit, how much of a fine would the driver receive?

21.) There are 4 pens for every 3 pencils in a bin. If there are a total of 243 pencils, how many pens are there in the bin?

22.) On a test, Carrie missed 2 problems for every 7 problems she answered correctly. If there were 126 questions on the test, how many questions did Carrie miss?

Section 5: One Step Equations**[2 Points Each]**

Solve each equation, showing your work appropriately.

23.) $-\frac{x}{4}=35$

24.) $-15 + x = -48$

25.) $-60 = x - 21$

26.) $\frac{3}{5}x=60$

27.) $-x=-15$

28.) $3\frac{1}{4}x=80$

29.) $5x=88$

30.) $10 + x = -33$

Section 6: Evaluating Expressions**[3 Points Each]****SHOW EACH STEP USED IN CALCULATING THE FOLLOWING:**

31.) $(-4)^2 - 10 \cdot 6 \div 3 \cdot 2 - 4$

32.) $-6^2 \div (-3 + 1) + 4 - 8 \cdot 5$

Section 7: Scientific Notation

[3 Points Each]

Convert the following numbers into scientific notation:

33.) 3,450,000,000,000

34.) -0.0000103

35.) -1,000,000

36.) 0.0232

Convert the following numbers out of scientific notation:

37.) -3.22×10^7

38.) 5.4×10^{-2}

39.) 8.72×10^5

40.) -2.1×10^{-8}

Bonus**[5 Points]**

Joe bought a new video game system online. It was priced for \$259, but there was a 12% off sale. Additionally, there was a shipping fee. Joe ended up paying \$244.44 for the system. What was the percent shipping fee on the purchase?