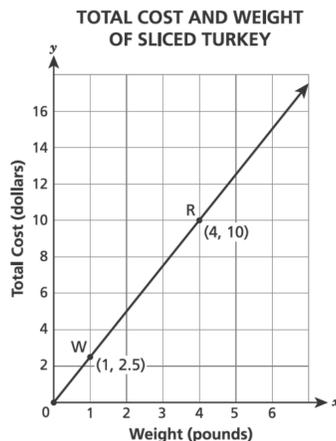


You may use a calculator for all these questions but be able to show the *process* used.

1. Modell's offers the following sale for customers purchasing jerseys. John plans to take advantage of this sale and purchase 4 jerseys. If a sales tax of 8% will be added to the subtotal, how much will John pay in total?

All Jerseys - \$59.80 each
Buy 3 - get the 4th Jersey 25% off

2. In 2016, 750 people purchased season ticket plans for the New York Mets. In 2017, 480 people purchased season tickets. What was the percent decrease in season ticket sales from 2016 to 2017?
3. Carlos earns 3.5% in commission each month on his sales. If he wants to make \$2730 in January, what must be the minimum amount for his total sales?
4. Mr. Rice plans on buying 18 graphing calculators for his classroom. At Staples, they sell graphing calculators for \$89.95 each. Mr. Rice has a membership card that will take off 15% and then an 8% sales tax will be applied to that discounted price. At an OfficeMax in New Jersey, they charge \$70.25 for graphing calculators, a 9% sales tax on the subtotal, and a flat shipping fee of \$15. Given these details, what is the difference in the cost of purchasing 18 graphing calculators between these two stores?
5. Joel wants to make \$7200 in interest from his 5-year investment at Chase. If their interest rate is currently 3%, how much of a one-time, initial deposit must Joel make?
6. Identify the graph of "Cost/Turkey weight" as proportional or non-proportional. Explain your selection.
- What is the unit rate? What is the constant of proportionality? Explain their meaning in this context
 - Write an equation to model the relationship between the cost (c) and the weight (w) of turkey
 - If the line passes through the point (k , 35), find the value of " k "



7. Henrik drives 168 miles in 4 hours. Write an equation to model the relationship between the number of miles driven, m , and the hours, h , that Henrik drives for.

8. Eileen used a 15% coupon for her new North Face jacket, and ended up paying \$119. If there was no sales tax, how much was the jacket before the coupon was applied?
9. The coordinate (15, 10) lies on a proportional graph. For each coordinate below, identify whether or not this same graph passes through it (yes/no).
- (3, 2)
 - (25, 20)
 - (60, 40)
 - (20, 30)
10. The cost of different selections of gumballs at the candy store are listed below:
- Fill in the missing values
 - Determine the constant of proportionality
 - Write an equation of proportionality

Gumballs (g)	Cost (c)
8	\$1.76
12	\$2.64
	\$4.62
36	

11. A recipe uses 234 tablespoons of butter to make 1612 rolls. At this rate, how many rolls can be made per tablespoon of butter?
12. Jimmy bought a new couch and paid \$494.50, which included a 7.5% sales tax. If the salesman that sold Jimmy the couch earns an 8% commission on the sub-total cost of the couch (without tax), how much did the salesman earn from Jimmy's purchase?
13. Karen runs 12 sprints in 18 minutes. Identify the workout(s) below that are proportional to Karen's.
- Joe runs 18 sprints in 12 minutes
 - Steve runs 6 sprints in 9 minutes
 - John runs 9 sprints in 15 minutes
 - Jill runs 20 sprints in 30 minutes
14. Will has enrolled in one college course at St. John's, which will cost him \$1200. Instead of paying the entire cost up front, he accepts a payment plan that requires a \$75 down payment, and monthly installments of \$260 for the entire 6-month semester. What is the percent increase in the original cost of this course to the total cost paid back using the payment plan? Round your answer to the nearest tenth if necessary.