

Week 4 Homework

$$\frac{80x^2 + 84x - 13}{qx - 4} = \frac{-16x - 4 - 29}{qx - 4}$$

The equation above is true for all values of  $x \neq 4/q$ , where  $q$  is a constant. What is the value of  $q$ ?

- A. -5
- B. -2
- C. 2
- D. 5

$$\begin{aligned} wx - 6y &= 8 \\ 3x - 7y &= 5 \end{aligned}$$

In the system of equations shown above,  $w$  is a constant and  $x$  and  $y$  are variables. For what value of  $w$  will the system of equations have no solution?

- A.  $24/5$
- B.  $18/7$
- C.  $-18/7$
- D.  $-24/5$

The tables below show the distribution of scores of recent quizzes in U.S. History and Biology given to the same 33 students of a particular class.

Custom Cars Made in 2019

Car colors	Car type				Total
	Trucks	Sedans	Coupes	SUVs	
Blue	9	7	0	15	31
Green	12	6	9	0	27
Red	3	1	11	2	17
Orange	24	14	20	17	75

The table above shows the 75 cars in inventory that a custom assembly line made in 2019, categorized by car type and car color. What proportion of the car types are coupes and green?

- A.  $2/25$
- B.  $3/25$
- C.  $4/15$
- D.  $9/25$

U.S. History Quiz

Score	Frequency
1	5
2	7
3	8
4	7
5	6

Biology Quiz

Score	Frequency
1	1
2	2
3	3
4	22
5	5

Which of the following is true about the data Provided by the 33 students?

- A. The standard deviation of the scores on the U.S. History quiz is larger.
- B. The standard deviation of scores on the Biology quiz is larger.
- C. The standard deviation of the scores on the U.S. History quiz is the same as that of the Biology quiz.
- D. The standard deviation for the scores on the two quizzes cannot be calculated from the data provided.