CONSTANT OF PROPORTIONALITY

Determine the constant of proportionality from each representation below.

1.

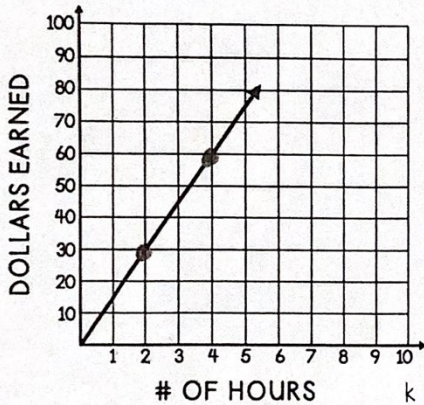| x	8	12	16	20	24
y	2	3	4	5	6

or $\frac{1}{4}$ k = __0.25__

2. There are 108 feet in 36 yards. What is the constant of proportionality that relates y, the number of yards to x, the number of feet?
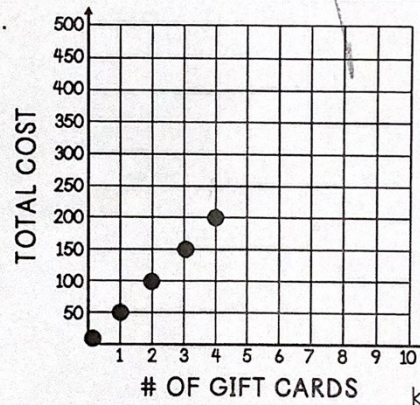
$\frac{36 yards}{108 feet}$

k = __$\frac{1}{3}$__

3.

(2,30)
(4,60)

OF HOURS   k = __15__

4.

OF GIFT CARDS   k = __50__

Use the situation below to complete the table and answer the questions.

A gym employee earns the same amount each month. After working for three months, he earned $4,500. Complete the table to determine how much money he will make over a five-month period.

5. Is the relationship proportional? Explain your thinking.

yes   the table is constant

6. What is the constant of proportionality?

1500

7. Write an equation to represent the situation.

y = 1500x

MONTH	TOTAL EARNINGS	$\frac{y}{x}$
1	1500	1500
2	3000	1500
3	$4,500	1500
4	6000	1500
5	7500	1500

8. If his pay rate remains the same, how much will he earn after working 7 months?

1500 · 7 = $10,500

9. After how many months will the gym employee earn $15,000?

15000 = 1500x
10 = x
months