Lesson 1 Practice Problems

1. A certain ceiling is made up of tiles. Every square meter of ceiling requires 10.75 tiles. Fill in the table with the missing values.

square meters of ceiling	number of tiles
1	
10	
	100
a	

2. On a flight from New York to London, an airplane travels at a constant speed. An equation relating the distance traveled in miles, d, to the number of hours flying, t, is $t = \frac{1}{500}d$. How long will it take the airplane to travel 800 miles?

3. Each table represents a proportional relationship. For each, find the constant of proportionality, and write an equation that represents the relationship.

s	P
2	8
3	12
5	20
10	40

d	C
2	6.28
3	9.42
5	15.7
10	31.4

Constant of proportionality:

Equation: $P =$

Constant of proportionality:

Equation: $C =$

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Lesson 1

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4. Diego bought 12 mini muffins for $4.20.

   a. At this rate, how much would Diego pay for 4 mini muffins?

number of mini muffins	price in dollars
12	4.20

   b. How many mini muffins could Diego buy with $3.00? Explain or show your reasoning. If you get stuck, consider using the table.

   (From Unit 2, Lesson 9.)

5. It takes $1\frac{1}{4}$ minutes to fill a 3-gallon bucket of water with a hose. At this rate, how long does it take to fill a 50-gallon tub? If you get stuck, consider using a table.

   (From Unit 2, Lesson 10.)

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Lesson 1

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