## Unit 2 Lesson 4 Cumulative 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
 |
| * $a$
 |  |

1. 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?
2. 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
 |

* Constant of proportionality:
* Equation: $P=$

|  |  |
| --- | --- |
| * $d$
 | * $C$
 |
| * 2
 | * 6.28
 |
| * 3
 | * 9.42
 |
| * 5
 | * 15.7
 |
| * 10
 | * 31.4
 |

* Constant of proportionality:
* Equation: $C=$
1. A map of Colorado says that the scale is 1 inch to 20 miles or 1 to 1,267,200. Are these two ways of reporting the scale the same? Explain your reasoning.
* (From Unit 1, Lesson 11.)
1. Here is a polygon on a grid.
* 
	1. Draw a scaled copy of the polygon using a scale factor 3. Label the copy A.
	2. Draw a scaled copy of the polygon with a scale factor $\frac{1}{2}$. Label it B.
	3. Is Polygon A a scaled copy of Polygon B? If so, what is the scale factor that takes B to A?
* (From Unit 1, Lesson 3.)



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