## 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 |
|  |  |

1. On a flight from New York to London, an airplane travels at a constant speed. An equation relating the distance traveled in miles, , to the number of hours flying, , is . 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.

|  |  |
| --- | --- |
|  |  |
| * 2 | * 8 |
| * 3 | * 12 |
| * 5 | * 20 |
| * 10 | * 40 |

* Constant of proportionality:
* Equation:

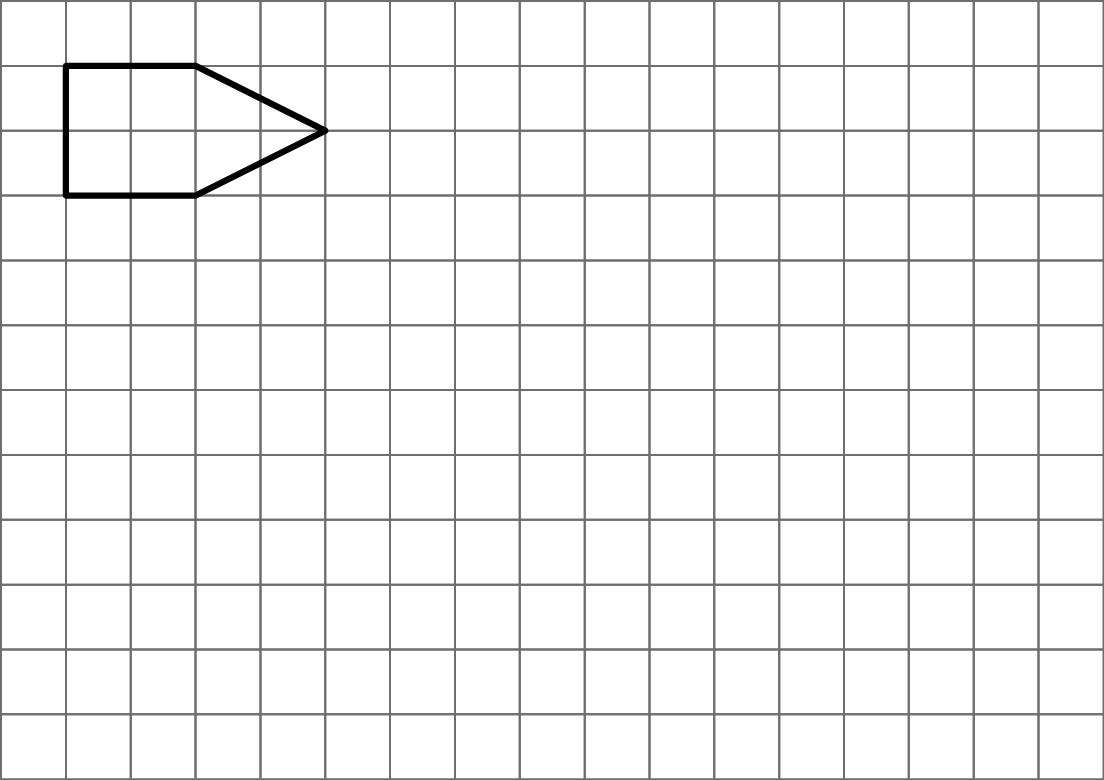
|  |  |
| --- | --- |
|  |  |
| * 2 | * 6.28 |
| * 3 | * 9.42 |
| * 5 | * 15.7 |
| * 10 | * 31.4 |

* Constant of proportionality:
* Equation:

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 . 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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