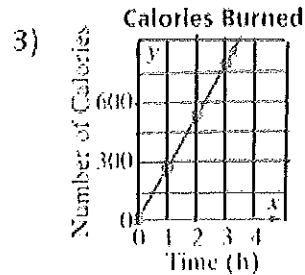
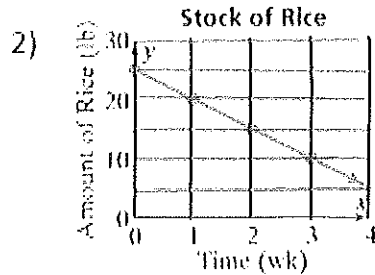
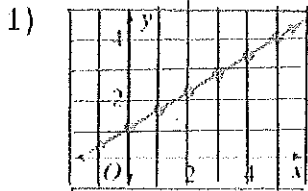


Proportional Relationships with **Graphs**

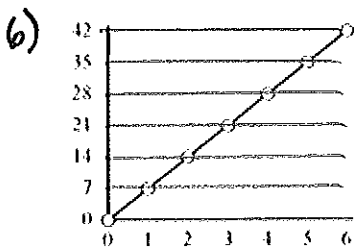
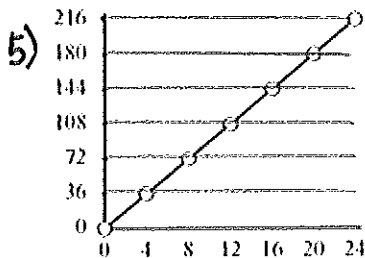
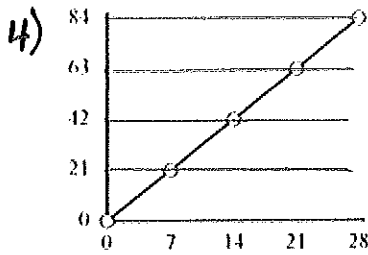
#163

Name: _____

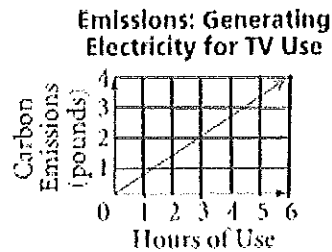
Determine if the graph is proportional. Explain.



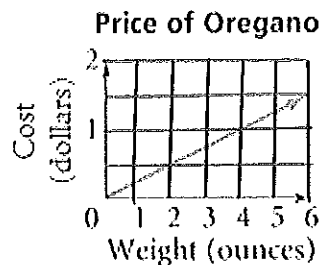
State the constant of proportionality. Explain.



7) What does the point (3,2) represent?
 What is the constant of proportionality?



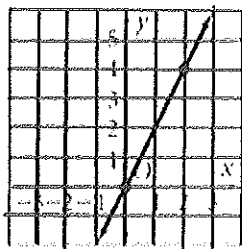
8) What does the point (2,0.5) represent?
 What is the constant of proportionality?



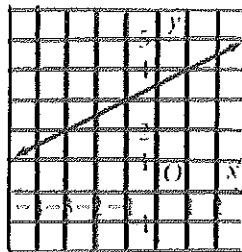
Proportional Relationships with Graphs

Does the table show a proportional relationship? Explain.

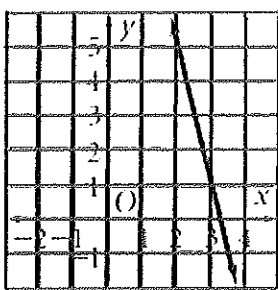
9)



10)

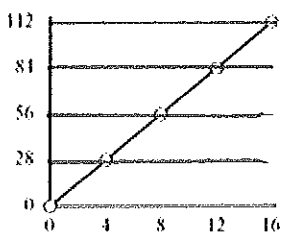


11)

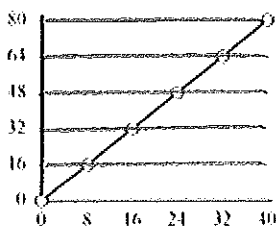


Determine constant of proportionality.

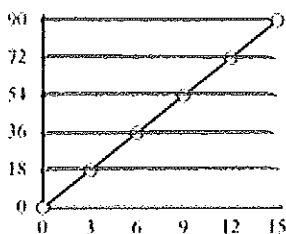
12)



13)

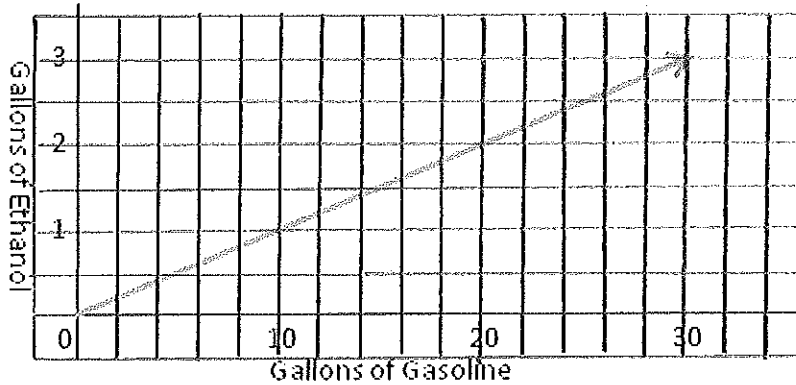


14)



Proportional Relationships with Graphs

- 15) The graph below shows the relationship between the number of gallons of ethanol-based gasoline and the number of gallons of regular gasoline sold at a gas station. What does $(30,3)$ on the graph represent? How can you use this to determine the constant of proportionality?



Proportional Relationships with Graphs

- 16) Jess says that two of the three points below are on a line through the origin.
 $(3,8)$ $(6,21)$ $(9,24)$

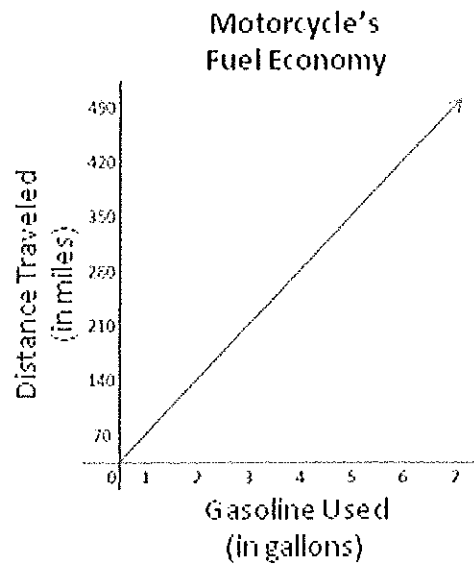
Which two points could lie on the same line through the origin? Explain why.

Explain why the third point could not.

Proportional Relationships with Graphs

17) Use the graph on the right.

- Explain how you know that this graph shows a proportional relationship.
- What does the point $(5, 350)$ represent on the graph?
- Which point on the graph shows the unit rate for this situation, and what is the unit rate?

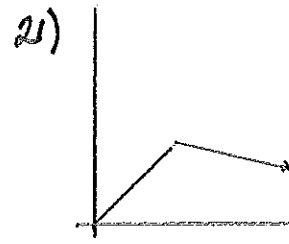
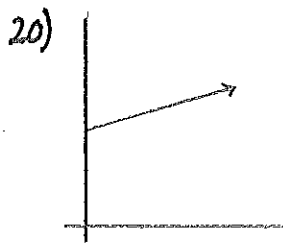
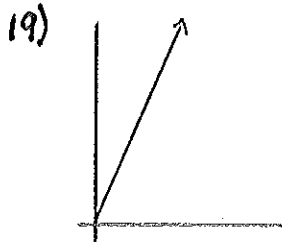


Proportional Relationships with Graphs

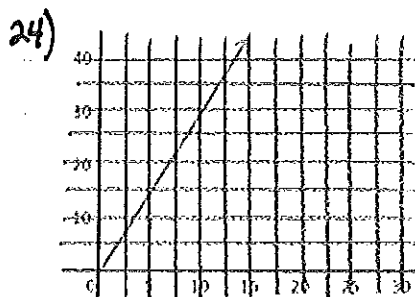
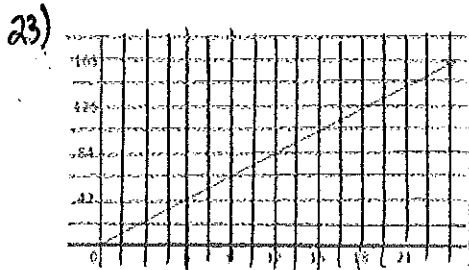
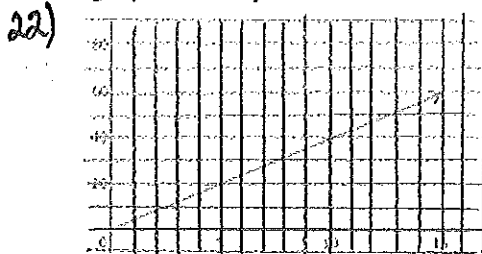
- 18) The graph of a proportional relationship passes through the points $(2, 22)$ and $(4, 44)$. Explain how you know the r -value for the point $(1, r)$.

Proportional Relationships with Graphs

Determine whether the graph shows a proportional relationship. Explain.



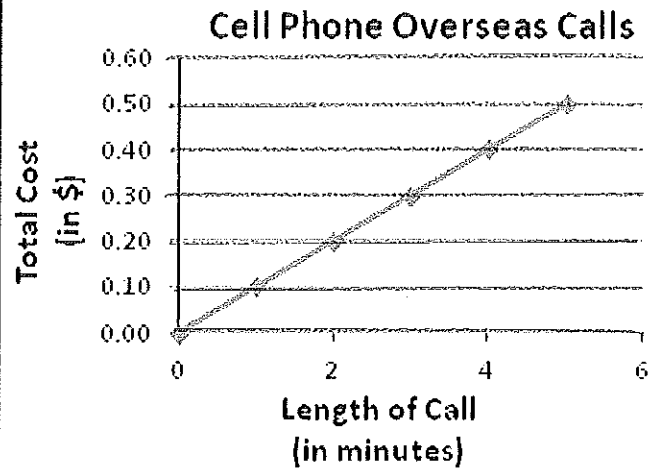
Determine the constant of proportionality for each graph. Justify.



TEST PRACTICE

Choose the best answer. Show your work.

25) The point (1.5, 0.15) is on the graph below. What does that point represent?



- a) A call that last 0.15 minutes will cost \$1.50.
- b) A call that lasts 1.5 minutes will cost \$0.15.
- c) The unit rate is \$0.15 per minute.
- d) The unit rate is \$1.50 per minute.