**Pizza Problems**

Solve the following problems by finding the circumference and area of different sizes of pizzas.

1. Complete the table below using the formula:

|  |  |
| --- | --- |
| **Radius (inches)** | **Circumference (inches)** |
| 8 |  |
| 12 |  |
| 16 |  |
| 20 |  |

1. Plot the data from the table above on the coordinate plane below. Label and scale the axes.



1. Is there a linear relationship between the circumference of a pizza and the radius? Explain.
2. Complete the table below using the formula:

|  |  |
| --- | --- |
| **Radius (inches)** | **Area (square inches)** |
| 8 |  |
| 12 |  |
| 16 |  |
| 20 |  |

1. Plot the data from the table above on the coordinate plane below. Label and scale the axes.



1. Is there a linear relationship between the area of a pizza and the radius? Explain.
2. Is paying $20 for a large pizza, which is 18 inches in diameter, a better buy than paying $5 for a personal size pizza that is 6 inches across? Explain.
3. Suppose someone eats only the stuffed crust and gives the center of the pizza to a friend. How can they get the most crust for their money? Justify your answer.