

1. [4 points] A small candy company called Wonky Bars sells two types of candy: chocolate bars and gummy worms. They have found that the number of chocolate bars sold, C , is inversely proportional to the square of g , the number of bags of gummy worms sold. At one point, Wonky Bars sold 150 chocolate bars and 30 bags of gummy worms. Give a formula for $C = f(g)$, the number of chocolate bars Wonky Bars sold when they sold g bags of gummy worms. *You do not need to simplify your answer.*

Solution: Since C is inversely proportional to the square of g , we have

$$C = k/g^2$$

for some value of k . Now we plug in the point we've been given and solve for k : $150 = k/30^2$, so $k = 150 \cdot 30^2$.

Answer: $f(g) = \underline{\hspace{10em} 150 \cdot 30^2 / g^2 \hspace{10em}}$