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

$$C = \frac{k}{g^2}$$

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:** $f(g) = \frac{150 \cdot 30^2}{g^2}$