

Act One: CeleBMI

1 The body mass index is used to determine a person's weight status: underweight, healthy, overweight, or obese. The BMI is calculated using weight (in pounds) and height (in inches). Use the formula to find the BMIs and weight statuses for the following celebrities.

$BMI = \frac{w \cdot 703}{h^2}$	Weight Status				
	Underweight	Healthy	Overweight	Obese	
	BMI ≤ 18	18 < BMI ≤ 25	25 < BMI ≤ 30	BMI > 30	











Shakira	Taylor Swift	Cee Lo Green	Christina Aguilera	Justin Timberlake
5'2", 125 lb	5'10", 120 lb	5'7", 245 lb	5'2", 150 lb	6'1", 168 lb

2 Pick two celebrities above whose weight status is not "healthy." How much weight would they need to gain or lose to have a healthy BMI?

3 Look at the six before-and-after scenarios below. In each, will the BMI increase or decrease?



Gain weight Same height



Same weight Grow taller



Lose weight Grow taller



Gain weight Grow taller



Gain weight Get shorter



Lose weight Get shorter



Act Two: Jacked

4 Without calculating anything, circle the celebrity in each pair that you expect has the higher body mass index. Then, use the internet to find their measurements, and calculate their BMIs. Were your predictions correct?



Do you think body mass index is a good way to determine whether a person's weight status is healthy or obese? Explain your reasoning.