

1. Colour the happy face on the Multiple Images handout so that it's easy to see. The happy face is the object you will be copying.
2. Place the two mirrors facing you, along the lines marked "left mirror" and "right mirror". The two mirrors should touch at the cross marked "centre," and the right side of the right-hand mirror should be touching point A. Start recording here.
3. Look into the mirrors. Beside point A in the table record the number of images of happy faces you see (including the one drawn on the page).
4. Move the right mirror so that it lies along an imaginary line between the centre point and point B. Now how many happy faces do you see? Record it in the table beside point B.
5. Repeat your observations, moving the right mirror to points C, D, E, F and G, and taking note of how many faces you can see at each angle. What do you notice?

Point	Angle Between Mirrors	# of Images
A	180 degrees	_____
B	120 degrees	_____
C	90 degrees	_____
D	72 degrees	_____
E	60 degrees	_____
F	30 degrees	_____
G	20 degrees	_____

