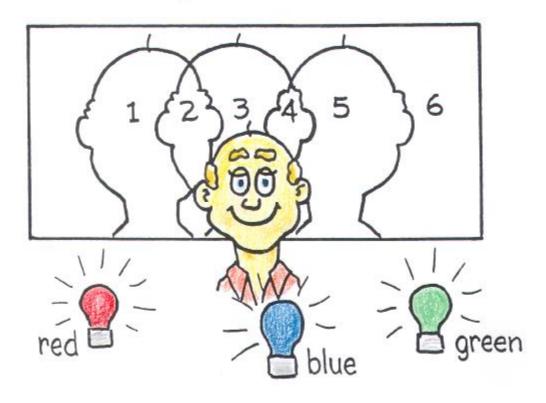
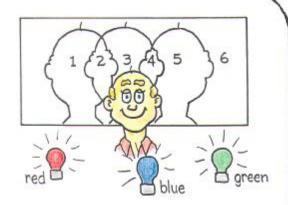
When three colored lamps, red, blue and green, illuminate a physics instructor in front of a white screen in a dark room, three slightly-overlapping shadows appear. Specify the colors in regions 1 through 6.





## Mexitime Question

When three colored lamps, red, blue and green, illuminate a physics instructor in front of a white screen in a dark room, three slightly-overlapping shadows appear. Specify the colors in regions 1 through 6.



## Answers:

CONCEPTUAL Physics

Region 1 (shadow of green lamp)

is magenta—illuminated by red and blue light.

Region 2 (shadow of overlapped blue and green lamps)

is red—illuminated by only red light.

Region 3 (shadow of blue lamp)

is yellow—illuminated by red and green light.

Region 4 (shadow of overlapped red and blue lamps)

is green—illuminated by only green light.

Region 5 (shadow of red lamp)

is cyan—illuminated by blue and green light.

Region 6 (non-shadowed screen)

is white—the addition of red, green and blue light.

