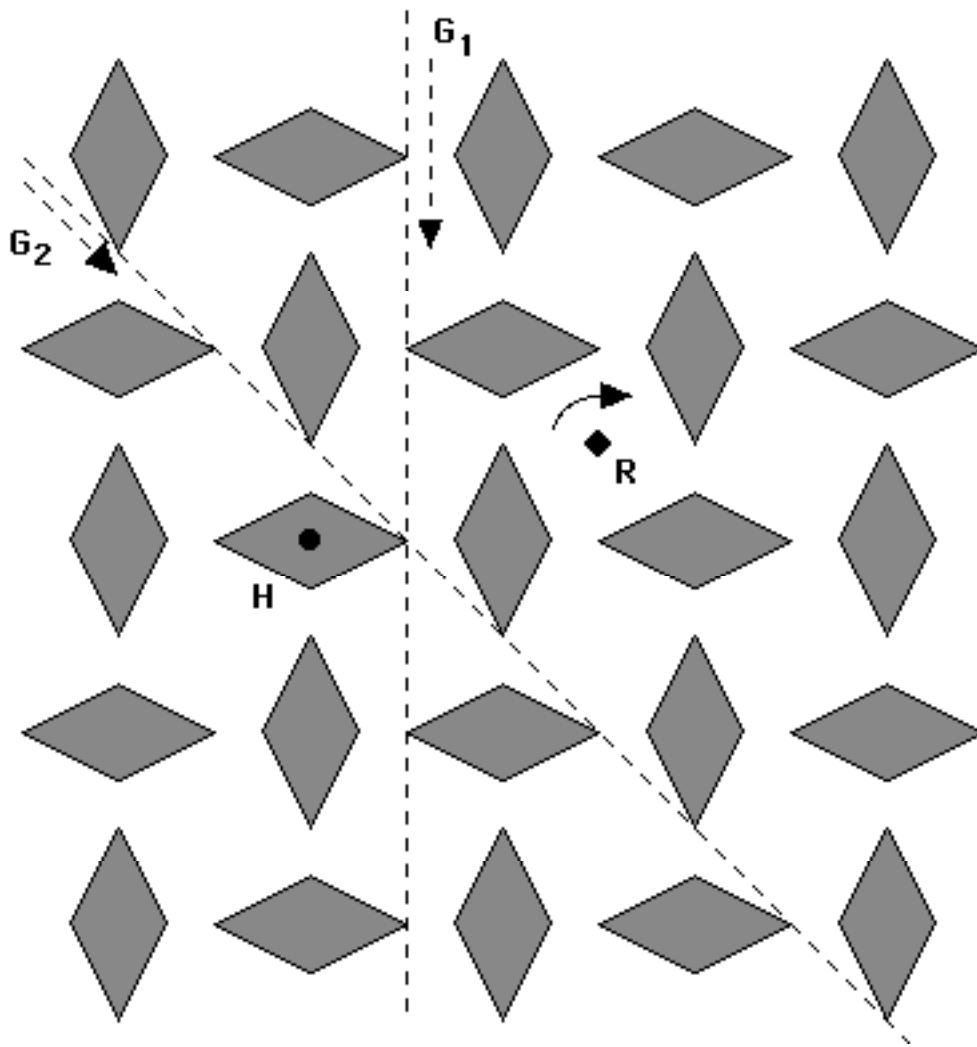


## MAT 203 -- Hour Exam #2

(1) Determine the following compositions:

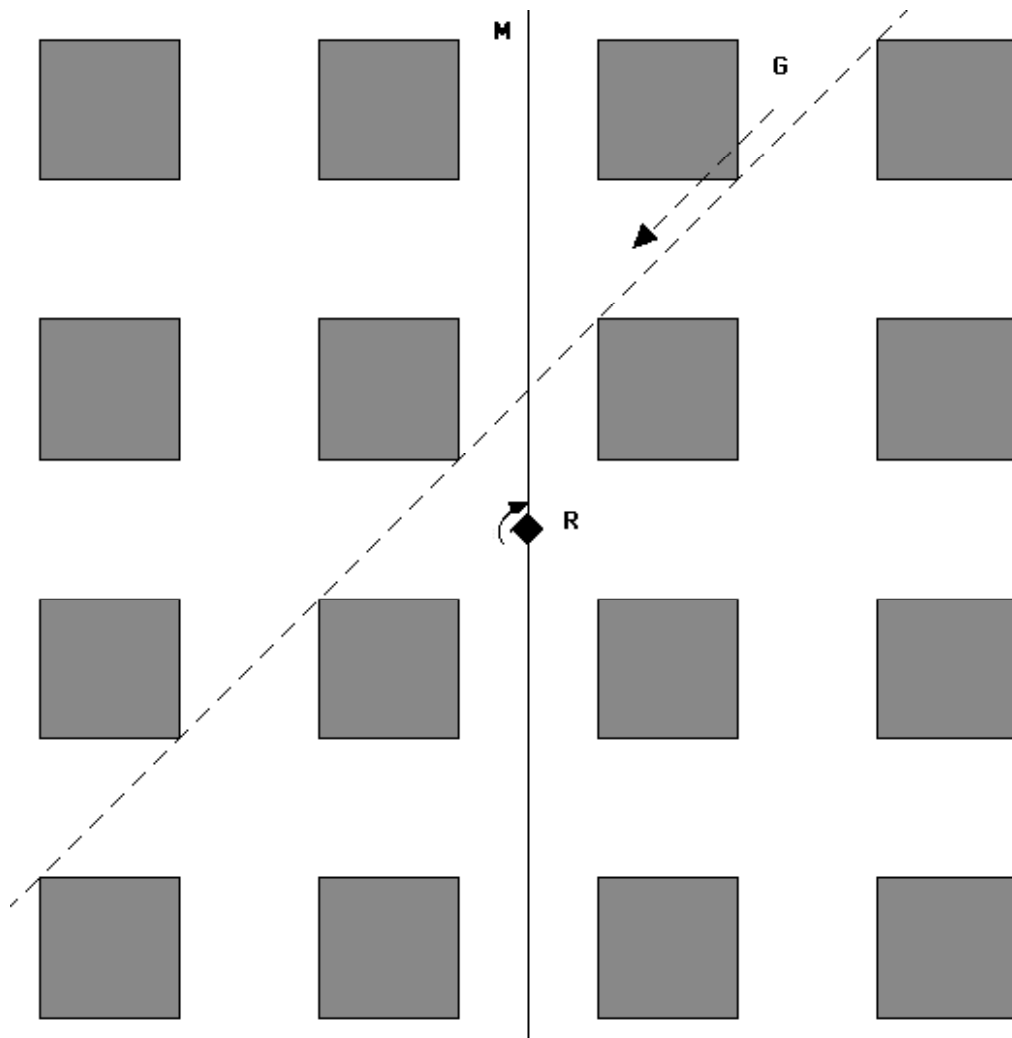
(a)

$G_1 * R$  ( $R$  followed by  $G_1$ ), where  $R$  is a clockwise  $90^\circ$  rotation and  $G_1$  is a vertical glide reflection.



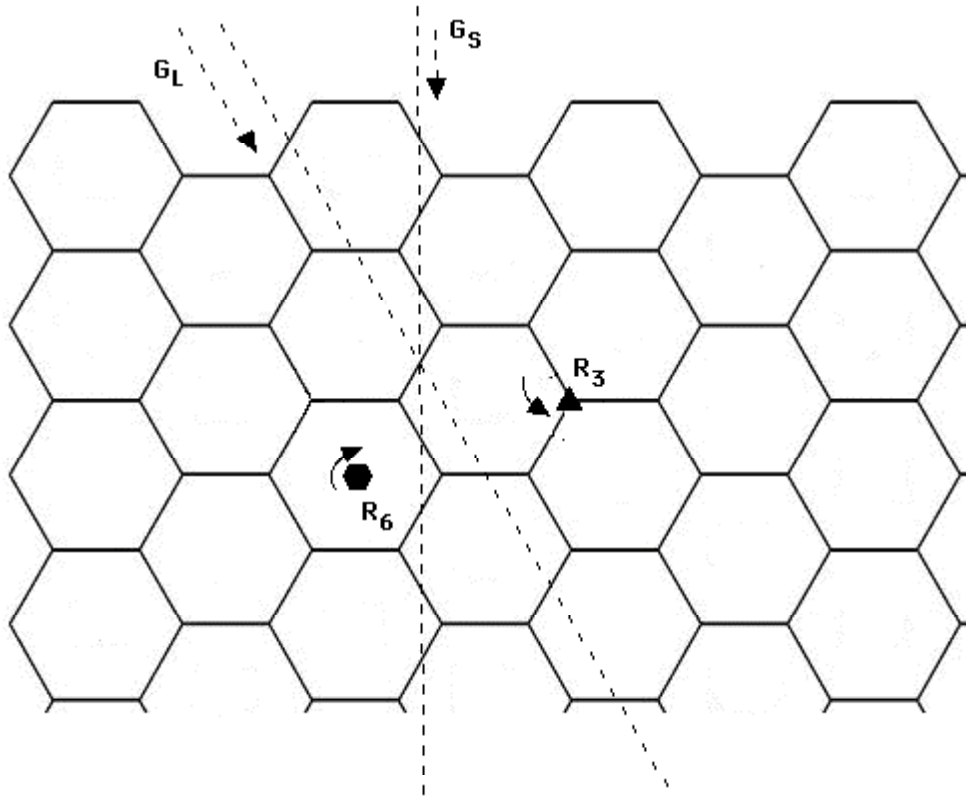
(b)

$\mathbf{M}*\mathbf{G}$  ( $\mathbf{G}$  followed by  $\mathbf{M}$ ), where  $\mathbf{M}$  is a vertical reflection and  $\mathbf{G}$  is a diagonal glide reflection.



(c)

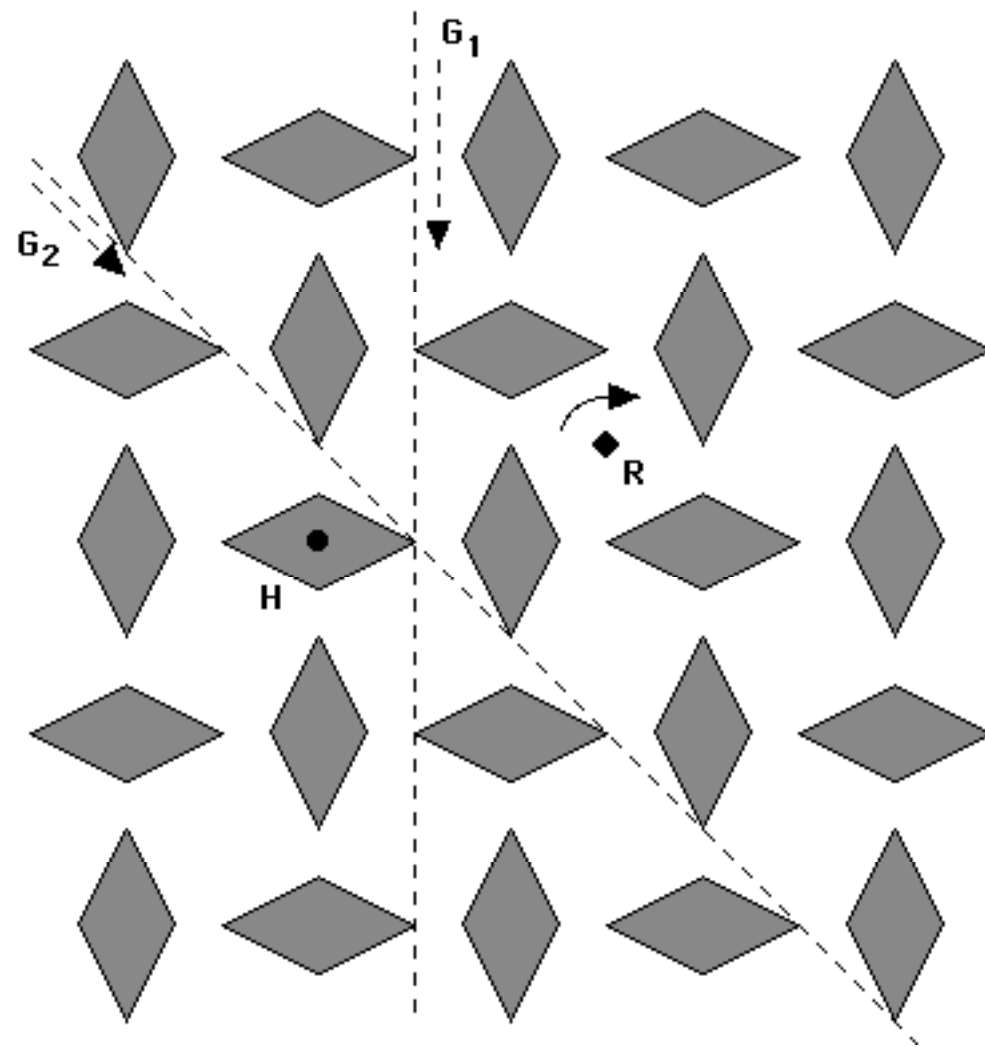
$R_6 * R_3$  ( $R_3$  followed by  $R_6$ ), where  $R_6$  is a clockwise  $60^\circ$  rotation and  $R_3$  is a counterclockwise  $120^\circ$  rotation.



(2) Determine the following images:

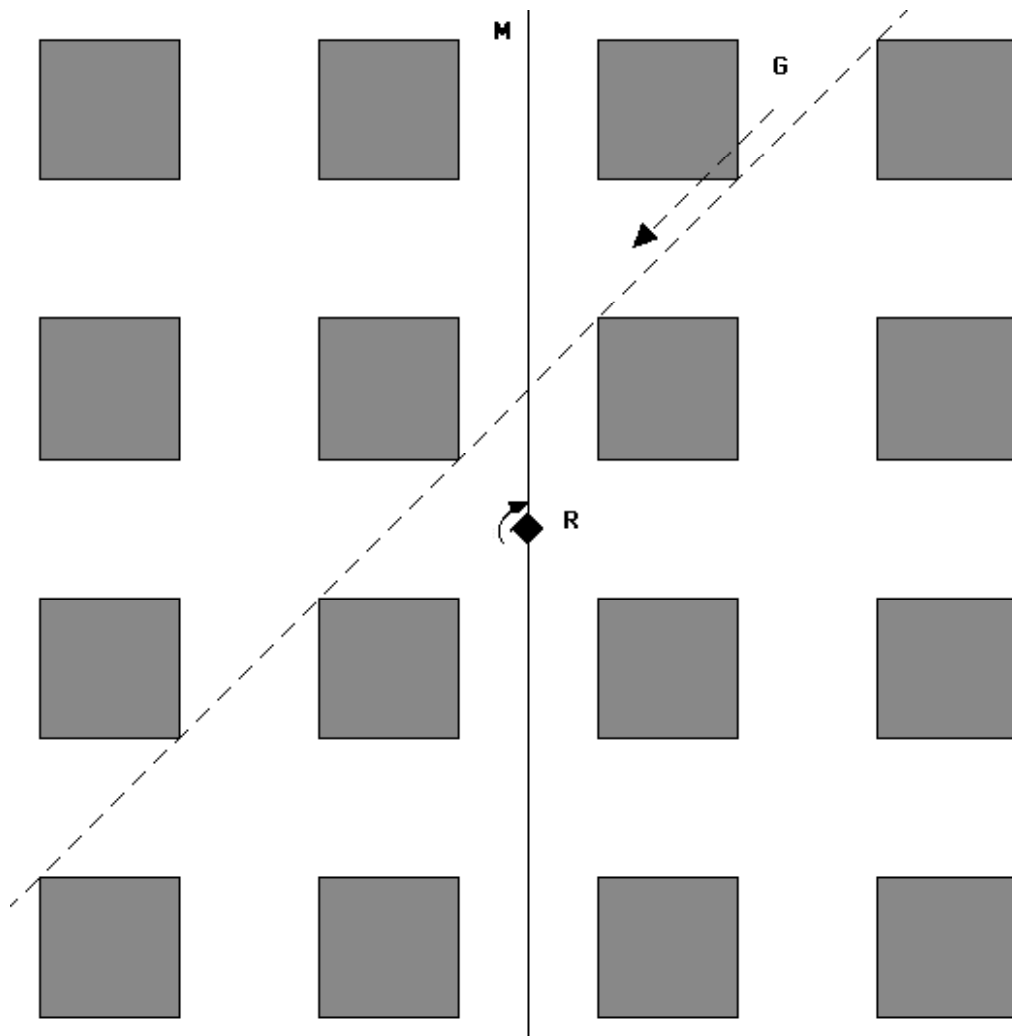
(a)

$G_2[R] =$



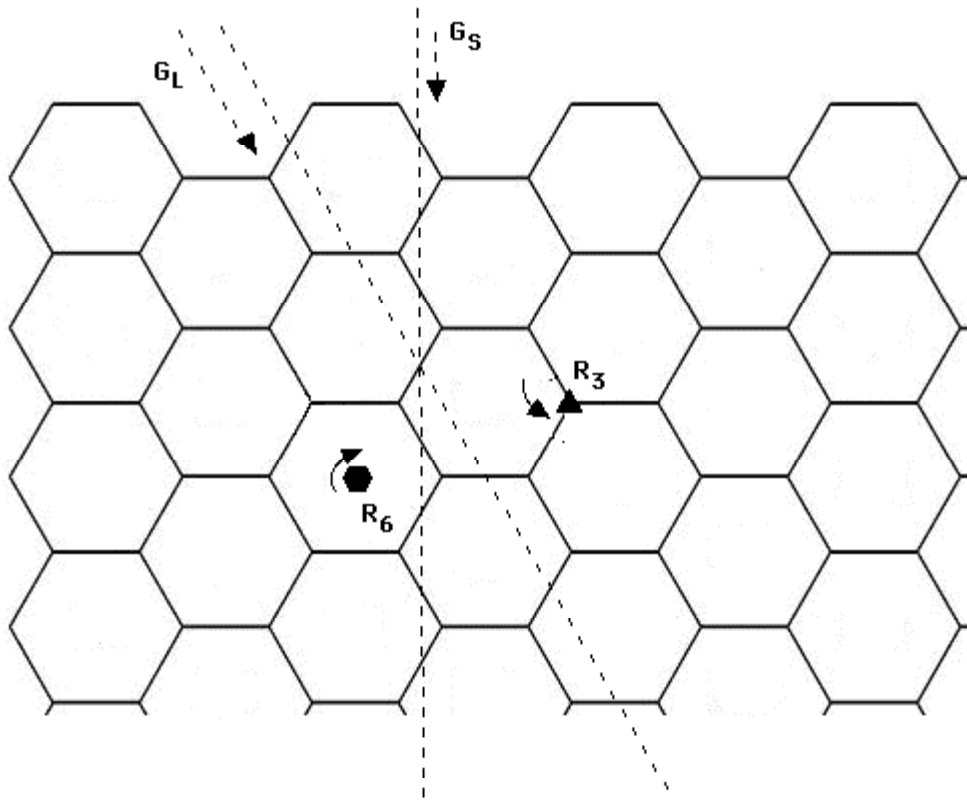
(b)

$R[G] =$



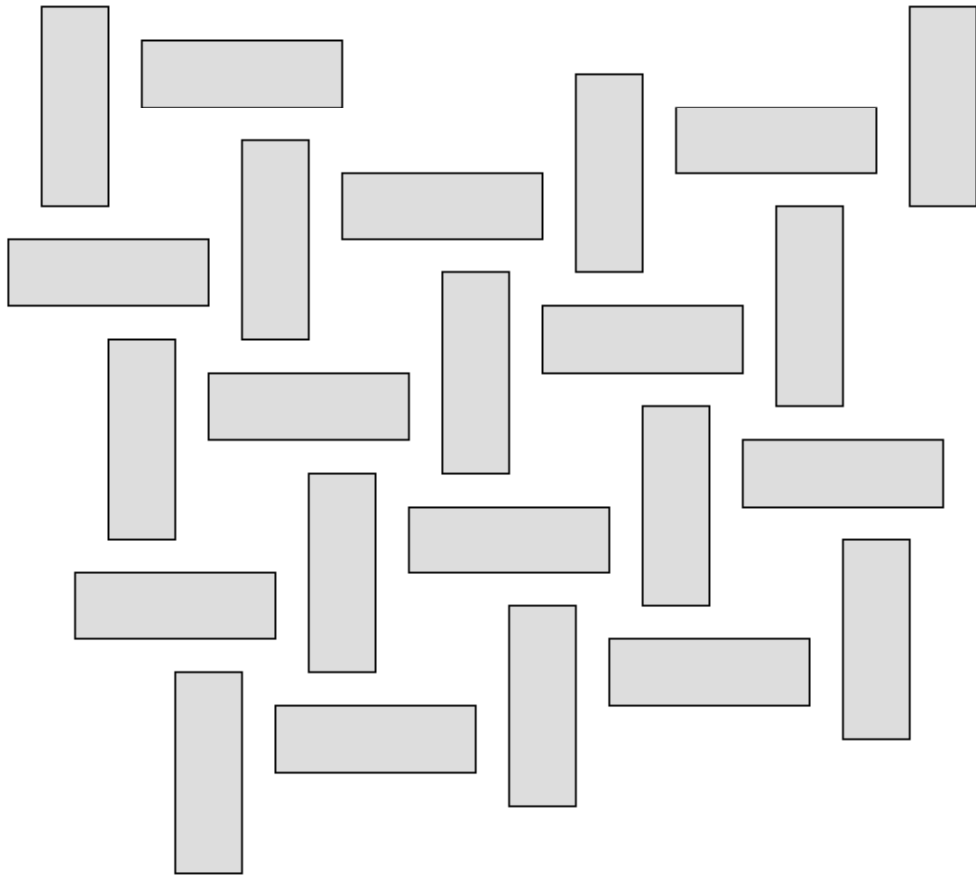
(c)

$G_S[G_L] =$

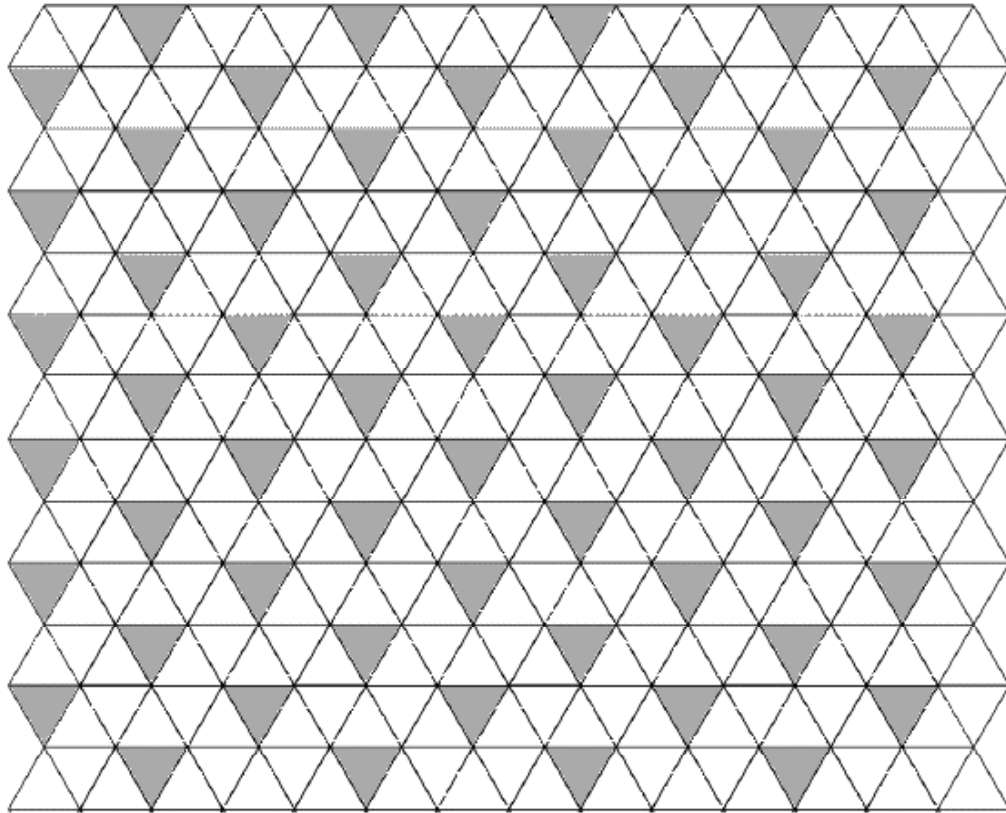


(3) Classify the following wallpaper patterns:

(a)

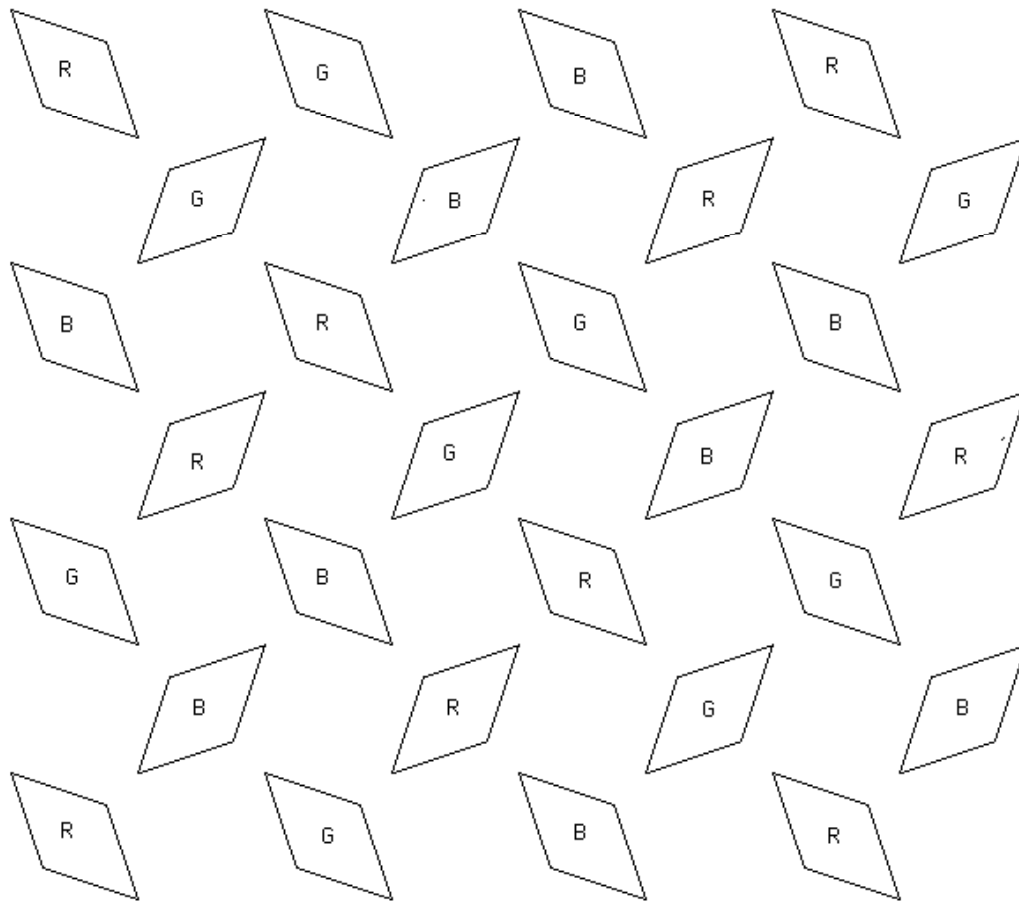


(b)



(4) Color the given patterns as indicated and classify them, indicating color-inconsistencies as appropriate:

(a)



(b)

