

$$a. \ cost_L = \frac{2}{10} \cdot 0$$

$$cost_R = \frac{8}{10} \cdot \left(1 - \left(\frac{2}{8}^2 + \frac{3}{8}^2 + \frac{5}{8}^2\right)\right)$$

$$\frac{8}{10} \cdot \left(1 - \frac{11}{32}\right)$$

$$0.525$$

$$G = 0 + 0.525 = \underline{0.525}$$

$$b. \ cost_L = \frac{3}{10} \cdot 0$$

$$cost_R = \frac{7}{10} \cdot \left(1 - \left(\frac{1}{7}^2 + \frac{3}{7}^2 + \frac{3}{7}^2\right)\right)$$

$$\frac{7}{10} \cdot \left(1 - \frac{19}{49}\right)$$

$$\frac{3}{7}$$

$$G = 0 + \frac{3}{7} = \underline{0.429}$$

$$c. \ cost_L = \frac{5}{10} \cdot \left(1 - \left(\frac{3}{5}^2 + \frac{2}{5}^2\right)\right)$$

$$\frac{5}{10} \cdot \left(1 - \frac{13}{25}\right)$$

$$0.24$$

$$cost_R = \frac{5}{10} \cdot \left(1 - \left(\frac{1}{5}^2 + \frac{1}{5}^2 + \frac{3}{5}^2\right)\right)$$

$$\frac{5}{10} \cdot \left(1 - \frac{11}{25}\right)$$

$$0.28$$

$$G = 0.24 + 0.28 = \underline{0.52}$$

$$d. \frac{6}{10} \cdot \left(1 - \left(\frac{1}{2}^2 + \frac{1}{2}^2\right)\right)$$
$$\frac{6}{10} \cdot \left(1 - \frac{1}{2}\right)$$
$$\frac{3}{10}$$

$$\text{cost}_R = \frac{4}{10} \cdot \left(1 - \left(\frac{1}{4}^2 + \frac{3}{4}^2\right)\right)$$
$$\frac{4}{10} \cdot \left(1 - \frac{5}{8}\right)$$
$$\frac{3}{20}$$

$$G = 0.3 + 0.15 = \underline{0.45}$$

$$e. \text{cost}_L = \frac{7}{10} \cdot \left(1 - \left(\frac{4}{7}^2 + \frac{3}{7}^2\right)\right)$$
$$\frac{7}{10} \cdot \left(1 - \frac{24}{49}\right)$$
$$\frac{12}{35}$$

$$\text{cost}_r = \frac{3}{10} \cdot (1 - 1)$$
$$0$$

$$G = \underline{0.343}$$

$$f. \text{cost}_C = \frac{8}{10} \cdot \left(1 - \left(\frac{4}{8}^2 + \frac{3}{8}^2 + \frac{1}{8}^2\right)\right)$$
$$\frac{8}{10} \cdot \left(1 - \frac{13}{32}\right)$$
$$0.475$$

$$G = 0 + 0.475 = \underline{0.475}$$

$$g. \ cost_L = \frac{9}{10} \cdot \left(1 - \left(\frac{4^2}{9} + \frac{3^2}{9} + \frac{2^2}{9}\right)\right)$$

0.578

$$cost_R = \frac{1}{10} \cdot 0$$

E

$$G = \underline{0.578}$$