2-22. BLOCK IT

a. The blue rhombus is 2 units of area. The red trapezoid is 3 units of area. The yellow hexagon is 6 units of area.

b. The green triangle is \( \frac{1}{2} \) unit of area. The red trapezoid is 1 \( \frac{1}{2} \) units of area. The yellow hexagon is 3 units of area.

c. The green triangle is \( \frac{1}{3} \) unit of area. The blue rhombus is \( \frac{2}{3} \) units of area. The yellow hexagon is 2 units of area.

d. The green triangle is \( \frac{1}{6} \) unit of area. The blue rhombus is \( \frac{1}{3} \) unit of area. The red trapezoid is \( \frac{1}{4} \) unit of area.

e. Additional Challenge:

i. Possible shapes could have a red trapezoid and a blue rhombus, or five green triangles, or a red trapezoid and two green triangles, or a blue rhombus and three green triangles.

ii. \( \frac{1}{3} - \frac{1}{6} = \frac{2}{6} - \frac{1}{6} = \frac{1}{6} \) units