# Daily Exercise Solution

Initial information:

Likes 4 units of Y for each unit of X

$M$      $840
$P_x$      $100
$P_y$      $10

Solving for the equilibrium bundle:

Preference information:

$$\frac{Q_y}{Q_x} = \frac{4}{1}$$

$$Q_y = 4Q_x$$

Budget constraint:

$$P_x Q_x + P_y Q_y = M$$

$$\$100 * Q_x + \$10 * Q_y = \$840$$

Combining them:

$$\$100 * Q_x + \$10(4Q_x) = \$840$$

$$(\$100 + \$40)Q_x = \$840$$

$$\$140 * Q_x = \$840$$

$$Q_x = 6$$

$$Q_y = 4 * Q_x$$
$$Q_y = 4 * 6 = 24$$

Check total spending:

$100*6 + $10*24 = $840 ✔

Drawing the diagram:

BC intercepts:

$$Q_y = \frac{\$840}{\$10} = 84$$

$$Q_x = \frac{\$840}{100} = 8.4$$