**Lesson 6.3 – Comparing Functions**

Steps:

1. Find the Slope

$\frac{rise}{run}$ ; $\frac{y\_{2- y\_{1}}}{x\_{2}-x\_{2}}$

1. Find the y-intercept (b)
2. Pick a plot point (x,y)
3. Plug into form (y=mx+b)
4. Solve for “b”
5. Rewrite the equation
6. Plug number in for x value
7. Compare the numbers

**EX 1: Example 1 in 6.3**

Josh: y = .50x + 10

Maggie:

|  |  |  |
| --- | --- | --- |
| Songs | 5 | 10 |
| Cost | 4.95 | 9.90 |

1. M = $\frac{9.90-4.95}{10-5}$ = $\frac{4.95}{5}$ = 0.99
2. Find the y-intercept.
3. y = mx + b (5, 4.95)
4. 4.95 = 0.99 (5) + b

4.95 = 4.95 + b

c. b = 0

1. y = 0.99x
2. J: y = .50x + 10 M: y = 0.99x

 y = .50 (30) + 10 y = 0.99 (30)

 y = 15 + 10 y = 29.70

 y = 25

1. Josh’s Music store is cheaper, since you pay $25