Pre Calculus **(7.1-7.3) Practice WS**

Name:_____Date:_____Per:___

SHOW ALL WORK UNDER PROBLEM FOR CREDIT➔ TYPE *work* and *ans.* in *blue*

[Upload this WS w/answers to **TEAMS by Friday** – ***1hr prior to your class*****]**

1) A company is planning to manufacture computer desks. The fixed cost will be $18,000 and it will cost $37 to produce each desk. Each desk will be sold for $85. Determine **a)** the **break-even point**, and **b)** the **minimum** number of desks that must be sold *to make a profit.*

C(x)=_____ R(x)=_____

2) A new restaurant is to contain two-seated tables and four-seated tables. Fire codes limits the restaurant's seating capacity to 56 customers. If the owners have hired enough servers to handle 16 tables, **how many *of each kind of table* should they purchase**?

3) ***Solve:*** $\begin{aligned} 2x - 3y - 2z &= 23 \\ 2z + 2y &= -22 \\ 3z &= -75 \end{aligned}$

4) Solve by the **Elimination Method (Addition Method):** $\begin{aligned} 4x - 2y &= 2 \\ -16x + 8y &= -8 \end{aligned}$

1) a) **Break-even point**: _____ b) **Minimum** number of desks that must be sold to *make a profit*: _____
2) _____ _____
3)
4)
5) _
6)
7)

In 5-7 decompose into partial fractions. Use *distributive property on answers*.

5) $\frac{1}{x(x-1)}$

6) $\frac{x}{x^2+x-6}$

7) $\frac{3x^2+49}{x(x+7)^2}$