1. Solve the following systems of equations using all three of our techniques:

i)
$$5x - 4y = 23$$

$$3x + 2y = 5$$

ii)
$$2x + 3y = 19$$

$$5x - y = 5$$

$$2x-2y-4z=-6$$

$$2x + y - z = -3$$

$$x + y + 2z = 5$$

$$3x + 2y - 2z = 17$$

iv)
$$x - y + z = -1$$

 $x + y + 3z = 3$

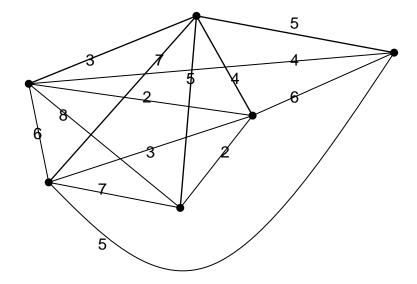
2. Prove:

iii)

i)
$$(A+B)+C=A+(B+C)$$

ii)
$$(A+B)C = AC+BC$$

3. Determine the minimal spanning tree (simply trace it with a colored pen):



4.	Determine the minimal spanning tree for figures 13.4, 13.5, and 13.8 on pages 638 and 643 of your text.