**Simplify the following *without using a calculator*. Show all work necessary for full credit**

1.  2. 

3.  4. 

**Solve the equation. Show your work.**

5. $5x=40$ 6. $x+3=23$ 7. $3x=27$ 8. $26=x+8$

9. $12x=6x+6$ 10. $8x+12=12x$

11. $3\left(2c+1\right)=5c+6$ 12. $4c+22=7c+10$

13. $4\left(2c+2\right)=3\left(2c+1\right)+ 7$ 14. $4\left(c+3\right)+6=2\left(3c+4\right)+ 3c$

15.  16. 

17.  18. 

**Write the number as a product of primes:**

19. 120

**Simplify:**

20. $\frac{3}{7}-\frac{5}{14}$