Advanced Pre Calculus Review Practice #6

1 **What is the complete solution to the equation $|3-6x|=15$?**

A $x=2; x=3$

B $x=-2; x=3$

C $x=2; x=-3$

D $x=-2; x=-3$

3 **For a wedding, Shereda bought several dozen roses and several dozen carnations. The roses cost \$15 per dozen, and the carnations cost \$8 per dozen. Shereda bought a total of 17 dozen flowers and paid a total of \$192. How many roses did she buy?**

A 6 dozen

B 7 dozen

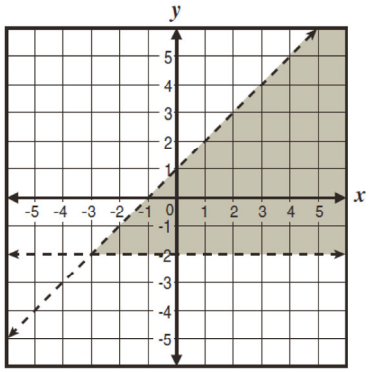
C 8 dozen

D 9 dozen

4 **What is the solution to the system of equations shown below?**

$$\begin{cases} 2x-y+3z=8 \\ x-6y-z=0 \\ -6x+3y-9z=24 \end{cases}$$

6 **What system of inequalities *best* represents the graph shown below?**



A $y>-2$ and $y>x+1$

B $y>-2$ and $y<x+1$

C $y<-2$ and $y>x+1$

D $y<-2$ and $y<x+1$

10 **Which polynomial represents $(3x^2+x-4)(2x-5)$?**

A $6x^3-13x^2-13x-20$

B $6x^3-13x^2-13x+20$

C $6x^3+13x^2+3x-20$

D $6x^3+13x^2+3x+20$

11 $(-2x^2+6x+1)-2(4x^2-3x+1)=$

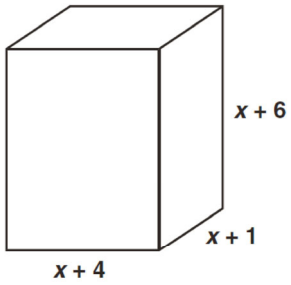
A $6x^2-1$

B $-10x^2-1$

C $6x^2+12x-1$

D $-10x^2+12x-1$

13 What is the volume of the figure below?



18 $\dfrac{x+3}{x+5} + \dfrac{6}{x^2+3x-10} =$

19 Which is a simplified form of $\dfrac{3a^2b^3c^{-2}}{(a^{-1}b^2c)^3}$?

A $\dfrac{3a^5}{b^3c^5}$

B $\dfrac{3ab}{c^5}$

C $\dfrac{3}{b^2c^5}$

D $\dfrac{3}{ab^3c^5}$

28 What is an equivalent form of $\dfrac{2}{3+i}$?

A $\dfrac{3-i}{4}$

B $\dfrac{3-i}{5}$

C $\dfrac{4-i}{4}$

D $\dfrac{4-i}{5}$