**Chapter 5 – Extra Practice**

1. Consider the following graph of $y=f(x)$ :
 

a) Explain why it is a function

b) Domain : Range :

c) Determine the following values :

 $f\left(0\right)=$ $f\left(1\right)=$

 $f\left(2\right)=$ $f\left(-2\right)=$

d) Determine *x* such that $f\left(x\right)=0$

e) Determine *x* such that $f\left(x\right)=12$
2. Consider the following graph of $y=f(x)$ :
 

b) Domain : Range :

c) Determine the following values :

 $f\left(-5\right)=$ $f\left(-1\right)=$

 $f\left(4\right)=$ $f\left(0\right)=$

d) Determine *x* such that $f\left(x\right)=1$

e) Determine *x* such that $f\left(x\right)=4$
3. Consider the function $f\left(x\right)=3x+5$

a) Determine $f(-2)$

b) Determine $f(3)$

c) Determine the exact value of *x* such that $f\left(x\right)=25$
4. Consider the following graph of $y=f(x)$ :
 

b) Domain : Range :

c) Determine the following values :

 $f\left(0\right)=$ $f\left(-4\right)=$

d) Determine *x* such that $f\left(x\right)=0$

e) Determine *x* such that $f\left(x\right)=1$
5. Consider the function $f\left(x\right)=-2x^{2}+3$

a) Determine $f(-2)$

b) Determine $f(3)$

c) Determine the exact value(s) of *x* such that $f\left(x\right)=-15$
6. Consider the following graph of $y=f(x)$ :
 

b) Domain : Range :

c) Determine the following values :

 $f\left(-5\right)=$ $f\left(-4\right)=$

 $f\left(0\right)=$ $f\left(3\right)=$

d) Determine *x* such that $f\left(x\right)=0$

e) Determine *x* such that $f\left(x\right)=3$
7. Consider the function $f\left(x\right)=(x-3)(x+1)$

a) Determine $f(-2)$

b) Determine $f(3)$
8. Consider the function $f\left(x\right)=-x^{2}+4x-2$

a) Determine $f(-2)$

b) Determine $f(3)$
9. Consider the following graph of $y=f(x)$ :
 

b) Domain : Range :

c) Determine the following values :

 $f\left(0\right)=$ $f\left(1\right)=$

 $f\left(2\right)=$ $f\left(3\right)=$

d) Determine *x* such that $f\left(x\right)=0$

e) Determine *x* such that $f\left(x\right)=5$

1. Consider the function $f\left(x\right)=-x+5$

a) Determine $f(-2)$

b) Determine $f(3)$

c) Determine the exact value(s) of *x* such that $f\left(x\right)=-15$

d) Determine the exact value(s) of *x* such that $f\left(x\right)=72$