General Algebra II Lesson \#1 Unit 5 Class Worksheet \#1
For Worksheets \#1 and \#2

General Algebra II CWS \#1 Unit 5


$$
\begin{aligned}
& \text { 1. } \mathrm{T}=3 \mathrm{x}+5 \mathrm{y} \\
& \mathrm{~T}_{\max }=-\quad \text { at } \\
& \mathrm{T}_{\min }=\square
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

1. $T=3 x+5 y$
$\mathrm{T}_{\text {max }}=\ldots$ at $\qquad$
$\mathrm{T}_{\text {min }}=$ $\qquad$ at $\qquad$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 1. } \mathrm{T}=3 \mathrm{x}+5 \mathrm{y} \\
& \mathrm{~T}_{\max }=-\quad \text { at } \\
& \mathrm{T}_{\min }=-\quad \text { at }
\end{aligned}
$$

At $\mathrm{A}(-1,0) \Longleftrightarrow \mathrm{T}=-3+0=\mathbf{- 3}$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{gathered}
\text { 1. } \mathrm{T}=3 \mathrm{x}+5 \mathrm{y} \\
\mathrm{~T}_{\max }= \\
\mathrm{T}_{\min }= \\
\text { at } \\
\text { At } \mathrm{A}(-1,0) ~ \\
\text { at } \longrightarrow \mathrm{T}=-3+0=\mathbf{- 3}
\end{gathered}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 1. } T=3 x+5 y \\
& \mathrm{~T}_{\text {max }}=\ldots \text { at } \\
& \mathrm{T}_{\text {min }}= \\
& \text { at } \\
& \text { At A(-1,0) } \Longleftrightarrow \mathrm{T}=-3+0=\mathbf{- 3} \\
& \text { At } \mathrm{B}(5,-1) \Longrightarrow \mathrm{T}=15+-5=\mathbf{1 0} \\
& \text { At } \mathrm{C}(8,2) \quad \Longrightarrow \mathrm{T}=24+10=\mathbf{3 4}
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 1. } \quad \mathrm{T}=3 \mathrm{x}+5 \mathrm{y} \\
& \mathrm{~T}_{\max }=\ldots
\end{aligned}
$$

$$
\mathrm{T}_{\min }=\ldots \mathrm{at}
$$

$\qquad$

$$
\text { At } \mathrm{A}(-1,0) \Longleftrightarrow \mathrm{T}=-3+0=\mathbf{- 3}
$$

$$
\text { At } \mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=15+-5=\mathbf{1 0}
$$

$$
\text { At } \mathrm{C}(8,2) \quad \Longrightarrow \mathrm{T}=24+10=\mathbf{3 4}
$$

$$
\text { At } \mathrm{D}(5,8) \quad \Longleftrightarrow \mathrm{T}=15+40=\mathbf{5 5}
$$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 1. } \quad \mathrm{T}=3 \mathrm{x}+5 \mathrm{y} \\
& \mathrm{~T}_{\max }=\ldots \quad \text { at }
\end{aligned}
$$

$$
\mathrm{T}_{\min }=\ldots \mathrm{at}
$$

$\qquad$

$$
\text { At } \mathrm{A}(-1,0) \Longleftrightarrow \mathrm{T}=-3+0=\mathbf{- 3}
$$

$$
\text { At } B(5,-1) \Longleftrightarrow \mathrm{T}=15+-5=\mathbf{1 0}
$$

$$
\operatorname{At~C}(8,2) \quad \Longrightarrow \mathrm{T}=24+10=\mathbf{3 4}
$$

$$
\text { At } \mathrm{D}(5,8) \quad \Longrightarrow \mathrm{T}=15+40=\mathbf{5 5}
$$

$$
\text { At } \mathrm{E}(-1,5) \Longleftrightarrow \mathrm{T}=-3+25=\mathbf{2 2}
$$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{align*}
& 1 . \quad \mathrm{T}=3 \mathrm{x}+5 \mathrm{y} \\
& \mathrm{~T}_{\max }=\underline{55} \text { at }  \tag{5,8}\\
& \mathrm{T}_{\min }=-\quad \text { at }
\end{align*}
$$

At $\mathrm{A}(-1,0) \Longleftrightarrow \mathrm{T}=-3+0=\mathbf{- 3}$
At $\mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=15+-5=\mathbf{1 0}$
At $\mathrm{C}(8,2) \longmapsto \mathrm{T}=24+10=\mathbf{3 4}$
At $\mathrm{D}(5,8) \longmapsto \mathrm{T}=15+40=\mathbf{5 5}$
At $\mathrm{E}(-1,5) \Longleftrightarrow \mathrm{T}=-3+25=\mathbf{2 2}$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 1. } \mathrm{T}=3 \mathrm{x}+5 \mathrm{y} \\
& \mathrm{~T}_{\max }=\underline{55} \text { at } \frac{(5,8)}{\mathrm{T}_{\min }=-\mathbf{3}} \text { at } \frac{(-1,0)}{}
\end{aligned}
$$

$$
\text { At } \mathrm{A}(-1,0) \Longleftrightarrow \mathrm{T}=-3+0=\mathbf{- 3}
$$

$$
\operatorname{At~} \mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=15+-5=\mathbf{1 0}
$$

$$
\text { At } \mathrm{C}(8,2) \quad \Longrightarrow \mathrm{T}=24+10=\mathbf{3 4}
$$

$$
\text { At } \mathrm{D}(5,8) \quad \Longrightarrow \mathrm{T}=15+40=\mathbf{5 5}
$$

$$
\text { At } \mathrm{E}(-1,5) \Longleftrightarrow \mathrm{T}=-3+25=\mathbf{2 2}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.
2. $T=6 x$ ï $2 y$
$\mathrm{T}_{\text {max }}=$ at $\qquad$
$\mathrm{T}_{\text {min }}=$ $\qquad$ at $\qquad$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.
2. $T=6 x$ ï $2 y$
$\mathrm{T}_{\text {max }}=\ldots$ at $\qquad$
$\mathrm{T}_{\text {min }}=$ $\qquad$ at

At A(-1,0) $\Longleftrightarrow \mathrm{T}=-6 \ddot{\mathrm{I}} 0=\mathbf{- 6}$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
2 . \quad \mathrm{T}=6 \mathrm{x} \text { ï } 2 \mathrm{y} \\
\mathrm{~T}_{\max }= & \text { at } \\
\mathrm{T}_{\min }= & \text { at }
\end{array}
$$

At A(-1,0) $\Longleftrightarrow \mathrm{T}=-6 \ddot{\mathrm{I}} 0=\mathbf{- 6}$
At $\mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=30$ ї $-2=\mathbf{3 2}$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
2 . \quad \mathrm{T}=6 \mathrm{x} \text { ï } 2 \mathrm{y} \\
\mathrm{~T}_{\max }=ـ & \text { at } \\
\mathrm{T}_{\min }= & \text { at }
\end{array}
$$

$\qquad$
At A(-1,0) $\Longleftrightarrow \mathrm{T}=-6 \ddot{\mathrm{I}} 0=\mathbf{- 6}$
At $\mathrm{B}(5,-1) \quad \mathrm{T}=30$ ї $-2=\mathbf{3 2}$
At $\mathrm{C}(8,2) \quad \mathrm{T}=48 \mathrm{i} 4=44$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
2 . \quad \mathrm{T}=6 \mathrm{x} \text { ï } 2 \mathrm{y} \\
\mathrm{~T}_{\max }=ـ & \text { at } \\
\mathrm{T}_{\min }= & \text { at }
\end{array}
$$

$\qquad$
At A(-1,0) $\Longleftrightarrow \mathrm{T}=-6 \ddot{\mathrm{I}} 0=\mathbf{- 6}$
At $\mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=30$ ї $-2=\mathbf{3 2}$
At $\mathrm{C}(8,2) \quad \mathrm{T}=48 \mathrm{i} \mathrm{i} 4=44$
At $\mathrm{D}(5,8) \quad \mathrm{T}=30$ ї $16=\mathbf{1 4}$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
\text { 2. } \quad \mathrm{T}=6 \mathrm{x} \text { Ï } 2 \mathrm{y} \\
\mathrm{~T}_{\max }= & \text { at } \\
\mathrm{T}_{\min }= & \text { at }
\end{array}
$$

$\qquad$

$$
\text { At A(-1,0) } \Longleftrightarrow \mathrm{T}=-6 \ddot{\mathrm{i}} 0=-6
$$

$$
\text { At } \mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=30 \ddot{\mathrm{i}}-2=\mathbf{3 2}
$$

$$
\text { At } \mathrm{C}(8,2) \Longleftrightarrow \mathrm{T}=48 \text { ï } 4=44
$$

$$
\text { At } \mathrm{D}(5,8) \quad \mathrm{T}=30 \ddot{\mathrm{I}} 16=\mathbf{1 4}
$$

$$
\text { At } \mathrm{E}(-1,5) \Longleftrightarrow \mathrm{T}=-6 \ddot{ } 10=\mathbf{- 1 6}
$$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
2 . \quad T=6 x \ddot{~ I} & 2 y \\
T_{\max }=44 & \text { at }  \tag{8,2}\\
T_{\min }= & \text { at }
\end{array}
$$

At A(-1,0) $\Longleftrightarrow \mathrm{T}=-6 \ddot{\mathrm{I}} 0=\mathbf{- 6}$
At $\mathrm{B}(5,-1) \quad \mathrm{T}=30$ ї $-2=\mathbf{3 2}$
At $\mathrm{C}(8,2) \quad \mathrm{T}=48 \mathrm{i} 4=44$
At $\mathrm{D}(5,8) \quad \mathrm{T}=30 \ddot{\mathrm{I}} 16=\mathbf{1 4}$
At $\mathrm{E}(-1,5) \Longleftrightarrow \mathrm{T}=-6 \mathrm{i} \quad 10=\mathbf{- 1 6}$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\text { At } \mathrm{A}(-1,0) \Longleftrightarrow \mathrm{T}=-6 \ddot{\mathrm{I}} 0=-6
$$

$$
\text { At } \mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=30 \text { ї }-2=\mathbf{3 2}
$$

$$
\text { At } \mathrm{C}(8,2) \Longleftrightarrow \mathrm{T}=48 \text { ï } 4=44
$$

$$
\text { At } \mathrm{D}(5,8) \quad \mathrm{T}=30 \ddot{\mathrm{I}} 16=\mathbf{1 4}
$$

$$
\text { At } \mathrm{E}(-1,5) \Longleftrightarrow \mathrm{T}=-6 \ddot{ } 10=\mathbf{- 1 6}
$$

$$
\begin{aligned}
& \text { 2. } T=6 x \text { ï } 2 y \\
& \mathrm{~T}_{\max }=\underline{44} \text { at } \underline{(8,2)} \\
& \mathrm{T}_{\min }=-16 \text { at } \quad(-1,5)
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{aligned}
& 3 . \quad \mathrm{T}=\mathrm{x} \ddot{\mathrm{I}} \quad 3 \mathrm{y} \\
& \mathrm{~T}_{\max }=-\quad \text { at } \\
& \mathrm{T}_{\min }=\square
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
3 . \quad \mathrm{T}=\mathrm{x} \ddot{\mathrm{I}} 3 \mathrm{y} \\
\mathrm{~T}_{\max }= & \text { at } \\
\mathrm{T}_{\min }= & \text { at }
\end{array}
$$

At A(-1,0) $\Longleftrightarrow \mathrm{T}=-1 \ddot{\mathrm{I}} 0=\mathbf{- 1}$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
\text { 3. } \quad \mathrm{T}=\mathrm{x} ̈ \ddot{\mathrm{I}} 3 \mathrm{y} \\
\mathrm{~T}_{\max }= & \text { at } \\
\mathrm{T}_{\min }= & \text { at }
\end{array}
$$

At A(-1,0) $\Longleftrightarrow \mathrm{T}=-1$ Ï $0=\mathbf{- 1}$
At $B(5,-1) \Longleftrightarrow \mathrm{T}=5 \ddot{\mathrm{I}}-3=\mathbf{8}$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
\text { 3. } \quad \mathrm{T}=\mathrm{x} ̈ \ddot{\mathrm{I}} 3 \mathrm{y} \\
\mathrm{~T}_{\max }= & \text { at } \\
\mathrm{T}_{\min }= & \text { at }
\end{array}
$$

At A(-1,0) $\Longleftrightarrow \mathrm{T}=-1$ Ï $0=\mathbf{- 1}$
At $\mathrm{B}(5,-1) \quad \mathrm{T}=5 \mathrm{Z}-3=8$
At $\mathrm{C}(8,2) \Longrightarrow \mathrm{T}=8 \mathrm{i} \mathbf{~} 6=\mathbf{2}$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
3 . \quad \mathrm{T}=\mathrm{x} \ddot{\mathrm{I}} 3 \mathrm{y} \\
\mathrm{~T}_{\max }= & \text { at } \\
\mathrm{T}_{\min }= & \text { at }
\end{array}
$$

$$
\text { At } \mathrm{A}(-1,0) \Longleftrightarrow \mathrm{T}=-1 \text { Ï } 0=\mathbf{- 1}
$$

$$
\text { At } \mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=5 \ddot{\mathrm{I}}-3=\mathbf{8}
$$

$$
\text { At } \mathrm{C}(8,2) \quad \mathrm{T}=8 \mathrm{i} 6=\mathbf{2}
$$

$$
\text { At } \mathrm{D}(5,8) \quad \Longrightarrow \mathrm{T}=5 \text { ї } 24=\mathbf{- 1 9}
$$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
\text { 3. } \quad \mathrm{T}=\mathrm{xïl} 3 \mathrm{y} \\
\mathrm{~T}_{\max }= & \text { at } \\
\mathrm{T}_{\min }=-\quad \text { at }
\end{array}
$$

$$
\text { At A(-1,0) } \Longleftrightarrow \mathrm{T}=-1 \text { Ï } 0=\mathbf{- 1}
$$

$$
\text { At } \mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=5 \mathrm{I} \mathrm{i}-3=\mathbf{8}
$$

$$
\text { At } \mathrm{C}(8,2) \Longleftrightarrow \mathrm{T}=8 \ddot{\mathrm{I}} 6=\mathbf{2}
$$

$$
\text { At } \mathrm{D}(5,8) \quad \Longrightarrow \mathrm{T}=5 \text { ї } 24=\mathbf{- 1 9}
$$

$$
\text { At } \mathrm{E}(-1,5) \Longleftrightarrow \mathrm{T}=-1 \text { Ï } 15=\mathbf{- 1 6}
$$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 3. } \mathrm{T}=\mathrm{x} \text { ï } 3 \mathrm{y} \\
& \mathrm{~T}_{\max }=\_\mathbf{8} \quad \text { at } \quad \text { (5,-1) } \\
& \mathrm{T}_{\min }=-
\end{aligned}
$$

At A(-1,0) $\Longleftrightarrow \mathrm{T}=-1$ Ï $0=\mathbf{- 1}$
At $\mathrm{B}(5,-1) \quad \mathrm{T}=5$ ї $-3=8$
At $\mathrm{C}(8,2) \Longrightarrow \mathrm{T}=8 \mathrm{i} \mathbf{~} 6=\mathbf{2}$
At $D(5,8) \quad \Longrightarrow \mathrm{T}=5$ ї $24=\mathbf{- 1 9}$
At $\mathrm{E}(-1,5) \quad \mathrm{T}=-1$ Ï $15=\mathbf{- 1 6}$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 3. } \mathrm{T}=\mathrm{x} \text { ï } 3 \mathrm{y} \\
& \mathrm{~T}_{\max }=\underline{8} \text { at } \frac{(5,-1)}{\mathrm{T}_{\min }=-19} \text { at } \frac{(5,8)}{}
\end{aligned}
$$

$$
\text { At } \mathrm{A}(-1,0) \Longleftrightarrow \mathrm{T}=-1 \text { Ï } 0=\mathbf{- 1}
$$

$$
\text { At } \mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=5 \mathrm{i}-3=\mathbf{8}
$$

$$
\text { At } \mathrm{C}(8,2) \Longleftrightarrow \mathrm{T}=8 \mathrm{i} 6=\mathbf{2}
$$

$$
\text { At } \mathrm{D}(5,8) \quad \Longrightarrow \mathrm{T}=5 \text { ї } 24=\mathbf{- 1 9}
$$

$$
\text { At } \mathrm{E}(-1,5) \Longleftrightarrow \mathrm{T}=-1 \ddot{ } 15=\mathbf{- 1 6}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 4. } \mathrm{T}=\mathrm{x}+2 \mathrm{y} \\
& \mathrm{~T}_{\max }=-\quad \text { at } \\
& \mathrm{T}_{\min }=
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
\text { 4. } \quad \mathrm{T}=\mathrm{x}+2 \mathrm{y} \\
\mathrm{~T}_{\max }= & \text { at } \\
\mathrm{T}_{\min }= & \text { at }
\end{array}
$$

At A(-1,0) $\Longleftrightarrow \mathrm{T}=-1+0=\mathbf{- 1}$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
\text { 4. } \quad \mathrm{T}=\mathrm{x}+2 \mathrm{y} \\
\mathrm{~T}_{\max }= & \text { at } \\
\mathrm{T}_{\min }= & \text { at }
\end{array}
$$

At A(-1,0) $\Longleftrightarrow \mathrm{T}=-1+0=\mathbf{- 1}$
At $\mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=5+-2=\mathbf{3}$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
\text { 4. } \quad \mathrm{T}=\mathrm{x}+2 \mathrm{y} \\
\mathrm{~T}_{\max }= & \text { at } \\
\mathrm{T}_{\min }= & \text { at }
\end{array}
$$

$$
\text { At } \mathrm{A}(-1,0) \Longleftrightarrow \mathrm{T}=-1+0=\mathbf{- 1}
$$

$$
\text { At } \mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=5+-2=3
$$

$$
\text { At } \mathrm{C}(8,2) \quad \Longrightarrow \mathrm{T}=8+4=\mathbf{1 2}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
\text { 4. } \quad \mathrm{T}=\mathrm{x}+2 \mathrm{y} \\
\mathrm{~T}_{\max }=- & \text { at } \\
\mathrm{T}_{\min }=- & \text { at }
\end{array}
$$

$\qquad$

At A(-1,0) $\Longleftrightarrow \mathrm{T}=-1+0=\mathbf{- 1}$
At $\mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=5+-2=\mathbf{3}$
At $\mathrm{C}(8,2) \quad \Longrightarrow \mathrm{T}=8+4=\mathbf{1 2}$
$\operatorname{AtD}(5,8) \quad \mathrm{T}=5+16=\mathbf{2 1}$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{array}{ll}
\text { 4. } \quad \mathrm{T}=\mathrm{x}+2 \mathrm{y} \\
\mathrm{~T}_{\max }=- & \text { at } \\
\mathrm{T}_{\min }=- & \text { at }
\end{array}
$$

$\qquad$

At $\mathrm{A}(-1,0) \quad \mathrm{T}=-1+0=\mathbf{- 1}$
At $\mathrm{B}(5,-1) \Longleftrightarrow \mathrm{T}=5+-2=\mathbf{3}$
At $\mathrm{C}(8,2) \quad \mathrm{T}=8+4=\mathbf{1 2}$
At $\mathrm{D}(5,8) \Longrightarrow \mathrm{T}=5+16=\mathbf{2 1}$
At E $(-1,5) \quad \mathrm{T}=-1+10=9$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 4. } \quad \mathrm{T}=\mathrm{x}+2 \mathrm{y} \\
& \mathrm{~T}_{\max }=\underline{\mathbf{2 1}} \text { at } \quad \text { at } \quad \\
& \mathrm{T}_{\min }=-\quad
\end{aligned}
$$

$$
\text { At } \mathrm{A}(-1,0) \Longleftrightarrow \mathrm{T}=-1+0=\mathbf{- 1}
$$

$$
\text { At } B(5,-1) \Longleftrightarrow \mathrm{T}=5+-2=\mathbf{3}
$$

$$
\text { At } \mathrm{C}(8,2) \Longleftrightarrow \mathrm{T}=8+4=\mathbf{1 2}
$$

$$
\operatorname{At} \mathrm{D}(5,8) \Longleftrightarrow \mathrm{T}=5+16=\mathbf{2 1}
$$

$$
\text { At } \mathrm{E}(-1,5) \Longleftrightarrow \mathrm{T}=-1+10=9
$$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $T$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 4. } \mathrm{T}=\mathrm{x}+2 \mathrm{y} \\
& \mathrm{~T}_{\max }=\underline{21} \text { at } \frac{(5,8)}{\mathrm{T}_{\min }=-1} \text { at } \frac{(-1,0)}{}
\end{aligned}
$$

$$
\text { At } \mathrm{A}(-1,0) \Longleftrightarrow \mathrm{T}=-1+0=\mathbf{- 1}
$$

$$
\text { At } B(5,-1) \Longleftrightarrow \mathrm{T}=5+-2=\mathbf{3}
$$

$$
\text { At } \mathrm{C}(8,2) \Longleftrightarrow \mathrm{T}=8+4=\mathbf{1 2}
$$

$$
\operatorname{At} \mathrm{D}(5,8) \Longleftrightarrow \mathrm{T}=5+16=\mathbf{2 1}
$$

$$
\text { At } \mathrm{E}(-1,5) \Longleftrightarrow \mathrm{T}=-1+10=9
$$

## General Algebra II CWS \#1 Unit 5

$$
\begin{aligned}
& \text { Questions 5-8 } \\
& x+3 \geq 0 \\
& x+y \geq 0 \\
& 2 x-3 y \leq 15 \\
& 2 x+3 y \leq 36 \\
& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

$$
\begin{aligned}
& \text { Questions 5-8 } \\
& \begin{array}{l}
x+3 \geq 0 \\
x+y \geq 0 \\
2 x-3 y \leq 15 \\
2 x+3 y \leq 36 \\
x-3 y \geq-27
\end{array} \\
& x
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

$$
\begin{aligned}
& \text { Questions 5-8 } \\
& \begin{array}{l}
x+3 \geq 0 \\
x+y \geq 0 \\
2 x-3 y \leq 15 \\
2 x+3 y \leq 36 \\
x-3 y \geq-27
\end{array}
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
& x+y \geq 0 \\
& 2 x-3 y \leq 15 \\
& 2 x+3 y \leq 36 \\
& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
& \mathrm{x}+\mathrm{y} \geq 0 \Rightarrow \mathrm{y} \geq-\mathrm{x} \\
& 2 \mathrm{x}-3 \mathrm{y} \leq 15 \\
& 2 \mathrm{x}+3 \mathrm{y} \leq 36 \\
& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
& \mathrm{x}+\mathrm{y} \geq 0 \Rightarrow \mathrm{y} \geq-\mathrm{x} \\
& 2 \mathrm{x}-3 \mathrm{y} \leq 15 \\
& 2 \mathrm{x}+3 \mathrm{y} \leq 36 \\
& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
& \mathrm{x}+\mathrm{y} \geq 0 \Rightarrow \mathrm{y} \geq-\mathrm{x} \\
& 2 \mathrm{x}-3 \mathrm{y} \leq 15 \\
& 2 \mathrm{x}+3 \mathrm{y} \leq 36 \\
& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
& \mathrm{x}+\mathrm{y} \geq 0 \Rightarrow \mathrm{y} \geq-\mathrm{x} \\
& 2 \mathrm{x}-3 \mathrm{y} \leq 15 \\
& 2 \mathrm{x}+3 \mathrm{y} \leq 36 \\
& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \\
& x+y \geq 0 \\
& 2 x-3 y \leq 15 \quad y \\
& 2 x+3 y \leq 36 \\
& 2 x \geq-3 \\
& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square \\
& x+y \geq 0 \\
& 2 x-3 y \leq 15 \Rightarrow y \geq-3 \\
& 2 x+3 y \leq 36 \\
& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square \\
& x+y \geq 0 \\
& 2 x-3 y \leq 15 \quad \square \\
& 2 x+3 y \leq 36 \\
& 2 x-3 \geq-x \\
& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square \\
& x+y \geq 0 \\
& 2 x-3 y \leq 15 \Rightarrow y \geq-3 \\
& 2 x+3 y \leq 36 \\
& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \neg \quad x \geq-3 \\
& x+y \geq 0 \Rightarrow y \geq-x \\
& 2 x-3 y \leq 15 \Rightarrow y \geq \frac{2}{3} x-5 \\
& 2 x+3 y \leq 36 \Rightarrow y \leq \frac{-2}{3} x+12 \\
& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \leadsto y \geq-3 \\
& x+y \geq 0 \\
& 2 x-3 y \leq 15 \Rightarrow y \geq-x \\
& 2 x+3 y \leq 36 \\
& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

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\begin{aligned}
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& x+y \geq 0 \\
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& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \\
& x+y \geq 0 \\
& 2 x-3 y \leq 15 \longmapsto y \geq-3 \\
& 2 x+3 y \leq 36 \\
& x-3 y \geq-27
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
& \mathbf{x}+\mathrm{y} \geq \mathbf{0} \Rightarrow \mathrm{y} \geq-\mathrm{x} \\
& 2 \mathrm{x}-3 \mathrm{y} \leq 15 \Rightarrow \mathrm{y} \geq \frac{2}{3} \mathrm{x}-5 \\
& 2 \mathrm{x}+3 \mathrm{y} \leq \mathbf{3 6} \Rightarrow \mathrm{y} \leq \frac{-2}{3} \mathrm{x}+12 \\
& \mathbf{x}-\mathbf{3 y} \geq \mathbf{- 2 7} \Rightarrow \mathrm{y} \leq \frac{1}{3} \mathrm{x}+9
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
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& 2 \mathrm{x}+3 \mathrm{y} \leq \mathbf{3 6} \Rightarrow \mathrm{y} \leq \frac{-2}{3} \mathrm{x}+12 \\
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\end{aligned}
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## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
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\end{aligned}
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## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
& \mathbf{x}+\mathrm{y} \geq \mathbf{0} \Rightarrow \mathrm{y} \geq-\mathrm{x} \\
& 2 \mathrm{x}-3 \mathrm{y} \leq 15 \Rightarrow \mathrm{y} \geq \frac{2}{3} \mathrm{x}-5 \\
& 2 \mathrm{x}+3 \mathrm{y} \leq \mathbf{3 6} \Rightarrow \mathrm{y} \leq \frac{-2}{3} \mathrm{x}+12 \\
& \mathbf{x}-\mathbf{3 y} \geq \mathbf{- 2 7} \Rightarrow \mathrm{y} \leq \frac{1}{3} \mathrm{x}+9
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \\
& x+y \geq 0 \\
& 2 x-3 y \leq 15 \Rightarrow y \geq-3 \\
& 2 x+3 y \leq 36 \\
& \hline y \geq-x \\
& x-3 y \geq-27 \Rightarrow y \leq \frac{-2}{3} x+12 \\
& x-y \leq \frac{1}{3} x+9
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
& \mathbf{x}+\mathrm{y} \geq \mathbf{0} \Rightarrow \mathrm{y} \geq-\mathrm{x} \\
& 2 \mathrm{x}-3 \mathrm{y} \leq 15 \Rightarrow \mathrm{y} \geq \frac{2}{3} \mathrm{x}-5 \\
& 2 \mathrm{x}+3 \mathrm{y} \leq \mathbf{3 6} \Rightarrow \mathrm{y} \leq \frac{-2}{3} \mathrm{x}+12 \\
& x-3 y \geq-27 \Rightarrow y \leq \frac{1}{3} x+9 \\
& 2 x \text { ï } 3 y=15 \\
& 2 x+3 y=36
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
& \mathbf{x}+\mathrm{y} \geq \mathbf{0} \Rightarrow \mathrm{y} \geq-\mathrm{x} \\
& 2 \mathrm{x}-3 \mathrm{y} \leq 15 \Rightarrow \mathrm{y} \geq \frac{2}{3} \mathrm{x}-5 \\
& 2 \mathrm{x}+3 \mathrm{y} \leq 36 \Rightarrow \mathrm{y} \leq \frac{-2}{3} \mathrm{x}+12 \\
& x-3 y \geq-27 \Rightarrow y \leq \frac{1}{3} x+9 \\
& 2 x \text { ï } 3 y=15 \\
& 2 x+3 y=36 \\
& 4 x=51
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
& \mathbf{x}+\mathrm{y} \geq \mathbf{0} \Rightarrow \mathrm{y} \geq-\mathrm{x} \\
& 2 \mathrm{x}-3 \mathrm{y} \leq 15 \Rightarrow \mathrm{y} \geq \frac{2}{3} \mathrm{x}-5 \\
& 2 \mathrm{x}+3 \mathrm{y} \leq \mathbf{3 6} \Rightarrow \mathrm{y} \leq \frac{-2}{3} \mathrm{x}+12 \\
& \mathbf{x}-\mathbf{3 y} \geq \mathbf{- 2 7} \Rightarrow \mathrm{y} \leq \frac{1}{3} \mathrm{x}+\mathbf{9} \\
& 2 x \text { ï } 3 y=15 \\
& 2 x+3 y=36 \\
& 4 x=51 \\
& \mathbf{x}=\mathbf{1 2 . 7 5}
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
& \mathbf{x}+\mathrm{y} \geq \mathbf{0} \Rightarrow \mathrm{y} \geq-\mathrm{x} \\
& 2 \mathrm{x}-3 \mathrm{y} \leq 15 \Rightarrow \mathrm{y} \geq \frac{2}{3} \mathrm{x}-5 \\
& 2 \mathrm{x}+3 \mathrm{y} \leq \mathbf{3 6} \Rightarrow \mathrm{y} \leq \frac{-2}{3} \mathrm{x}+12 \\
& \mathbf{x}-\mathbf{3 y} \geq \mathbf{- 2 7} \Rightarrow \mathrm{y} \leq \frac{1}{3} \mathrm{x}+9 \\
& 2 x \text { ï } 3 y=15 \quad-2 x+3 y=-15 \\
& 2 x+3 y=36 \quad 2 x+3 y=36 \\
& 4 \mathrm{x}=51 \\
& \mathbf{x}=\mathbf{1 2 . 7 5}
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
& \mathbf{x}+\mathrm{y} \geq \mathbf{0} \Rightarrow \mathrm{y} \geq-\mathrm{x} \\
& 2 \mathrm{x}-3 \mathrm{y} \leq 15 \Rightarrow \mathrm{y} \geq \frac{2}{3} \mathrm{x}-5 \\
& 2 \mathrm{x}+3 \mathrm{y} \leq 36 \Rightarrow \mathrm{y} \leq \frac{-2}{3} \mathrm{x}+12 \\
& \mathbf{x}-\mathbf{3 y} \geq \mathbf{- 2 7} \Rightarrow \mathrm{y} \leq \frac{1}{3} \mathrm{x}+9 \\
& 2 x \text { ï } 3 y=15 \quad-2 x+3 y=-15 \\
& \frac{2 x+3 y=36}{4 x=51} \quad \frac{2 x+3 y=36}{6 y=21} \\
& \mathbf{x}=\mathbf{1 2 . 7 5}
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square x \geq-3 \\
& \mathbf{x}+\mathrm{y} \geq \mathbf{0} \Rightarrow \mathrm{y} \geq-\mathrm{x} \\
& 2 \mathrm{x}-3 \mathrm{y} \leq 15 \Rightarrow \mathrm{y} \geq \frac{2}{3} \mathrm{x}-5 \\
& 2 \mathrm{x}+3 \mathrm{y} \leq 36 \Rightarrow \mathrm{y} \leq \frac{-2}{3} \mathrm{x}+12 \\
& x-3 y \geq-27 \Rightarrow y \leq \frac{1}{3} x+9 \\
& 2 x \text { ï } 3 y=15 \quad-2 x+3 y=-15 \\
& \begin{array}{ccc}
2 x+3 y=36 & & 2 x+3 y=36 \\
\cline { 1 - 3 } n & \begin{array}{c}
2 x=51 \\
\mathbf{x}=\mathbf{1 2 . 7 5}
\end{array} & \\
\hline y=3.5
\end{array}
\end{aligned}
$$



## General Algebra II CWS \#1 Unit 5

## Questions 5-8

$$
\begin{aligned}
& x+3 \geq 0 \quad \square \quad x \geq-3 \\
& \mathbf{x}+\mathrm{y} \geq \mathbf{0} \Rightarrow \mathrm{y} \geq-\mathrm{x} \\
& 2 \mathrm{x}-3 \mathrm{y} \leq 15 \Rightarrow \mathrm{y} \geq \frac{2}{3} \mathrm{x}-5 \\
& 2 \mathrm{x}+3 \mathrm{y} \leq 36 \Rightarrow \mathrm{y} \leq \frac{-2}{3} \mathrm{x}+12 \\
& \mathbf{x}-\mathbf{3 y} \geq-27 \Rightarrow \mathrm{y} \leq \frac{1}{3} \mathrm{x}+9 \\
& 2 x \text { ï } 3 y=15 \quad-2 x+3 y=-15 \\
& \begin{array}{rll}
2 x+3 y=36 & & 2 x+3 y=36 \\
\cline { 1 - 1 }=51 \\
\mathbf{x}=\mathbf{1 2 . 7 5} & & \begin{aligned}
6 y=21 \\
y=3.5
\end{aligned}
\end{array}
\end{aligned}
$$



General Algebra II CWS \#1 Unit 5

5. $F=x+2 y$
$\mathrm{F}_{\text {max }}=\quad$ a
$\mathrm{F}_{\text {min }}=$
at

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $F$ will occur at a vertex of the region.
5. $F=x+2 y$
$\mathrm{F}_{\text {max }}=$ at
$\mathrm{F}_{\text {min }}=$ $\qquad$ at $\qquad$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $F$ will occur at a vertex of the region.
5. $F=x+2 y$
$\mathrm{F}_{\text {max }}=\ldots$ at
$\mathrm{F}_{\text {min }}=$ $\qquad$ at $\qquad$
At $(3,10) \quad \mathrm{F}=3+20=\mathbf{2 3}$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $F$ will occur at a vertex of the region.
5. $F=x+2 y$
$\mathrm{F}_{\text {max }}=\ldots$ at
$\mathrm{F}_{\text {min }}=$ $\qquad$ at $\qquad$

$$
\begin{aligned}
& \text { At }(3,10) \quad \Longleftrightarrow \mathrm{F}=3+20=\mathbf{2 3} \\
& \text { At }(-3,8) \quad \Longleftrightarrow \mathrm{F}=-3+16=\mathbf{1 3}
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.
5. $F=x+2 y$
$\mathrm{F}_{\text {max }}=\ldots$ at $\qquad$
$\mathrm{F}_{\text {min }}=$ $\qquad$ at $\qquad$

$$
\begin{aligned}
& \text { At }(3,10) \quad \Longleftrightarrow \mathrm{F}=3+20=\mathbf{2 3} \\
& \text { At }(-3,8) \leadsto \mathrm{F}=-3+16=\mathbf{1 3} \\
& \text { At }(-3,3) \Longrightarrow \mathrm{F}=-3+6=\mathbf{3}
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $F$ will occur at a vertex of the region.
5. $F=x+2 y$
$\mathrm{F}_{\text {max }}=\ldots$ at $\qquad$
$\mathrm{F}_{\text {min }}=$ $\qquad$ at $\qquad$

$$
\begin{aligned}
& \text { At }(3,10) \quad \mathrm{F}=3+20=\mathbf{2 3} \\
& \text { At }(-3,8) \quad \Longrightarrow \mathrm{F}=-3+16=\mathbf{1 3} \\
& \text { At }(-3,3) \Longrightarrow \mathrm{F}=-3+6=\mathbf{3} \\
& \text { At }(3,-3) \quad \mathrm{F}=3+-6=\mathbf{- 3}
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.
5. $\mathrm{F}=\mathrm{x}+2 \mathrm{y}$
$\mathrm{F}_{\text {max }}=\ldots$ at $\qquad$
$\mathrm{F}_{\text {min }}=$ $\qquad$ at $\qquad$
At $(3,10) \Longleftrightarrow \mathrm{F}=3+20=\mathbf{2 3}$
At $(-3,8) \quad \Longrightarrow \mathrm{F}=-3+16=\mathbf{1 3}$
At $(-3,3) \quad \mathrm{F}=-3+6=\mathbf{3}$
At $(3,-3) \quad \mathrm{F}=3+-6=\mathbf{- 3}$

$$
\text { At }(12.75,3.5) \Longleftrightarrow \mathrm{F}=12.75+7=\mathbf{1 9 . 7 5}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.
5. $F=x+2 y$
$\mathrm{F}_{\text {max }}=\underline{23}$ at $\underline{(\mathbf{3}, 10)}$
$\mathrm{F}_{\text {min }}=\ldots$ at $\qquad$
At $(3,10) \Longleftrightarrow \mathrm{F}=3+20=\mathbf{2 3}$
At $(-3,8) \quad \Longrightarrow \mathrm{F}=-3+16=\mathbf{1 3}$
At $(-3,3) \quad \mathrm{F}=-3+6=\mathbf{3}$
At $(3,-3) \quad \mathrm{F}=3+-6=\mathbf{- 3}$
$\operatorname{At}(12.75,3.5) \Longleftrightarrow \mathrm{F}=12.75+7=\mathbf{1 9 . 7 5}$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.
5. $F=x+2 y$
$\mathrm{F}_{\text {max }}=\underline{23}$ at $-(\mathbf{3 , 1 0 )}$
$\mathrm{F}_{\text {min }}=-3 \quad$ at $\quad(3,-3)$

$$
\text { At }(12.75,3.5) \Longleftrightarrow \mathrm{F}=12.75+7=\mathbf{1 9 . 7 5}
$$

$$
\begin{aligned}
& \text { At }(3,10) \quad \Longrightarrow \mathrm{F}=3+20=\mathbf{2 3} \\
& \text { At }(-3,8) \quad \Longrightarrow \mathrm{F}=-3+16=\mathbf{1 3} \\
& \text { At }(-3,3) \Longrightarrow \mathrm{F}=-3+6=\mathbf{3} \\
& \text { At }(3,-3) \quad \mathrm{F}=3+-6=\mathbf{- 3}
\end{aligned}
$$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $F$ will occur at a vertex of the region.
6. $F=3 x$ ï $5 y$
$\mathrm{F}_{\text {max }}=$
$\mathrm{F}_{\text {min }}=$ $\qquad$ at $\qquad$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $F$ will occur at a vertex of the region.
6. $F=3 x$ ï $5 y$
$\mathrm{F}_{\text {max }}=\ldots$ at
$\mathrm{F}_{\text {min }}=$ $\qquad$ at $\qquad$
At $(3,10) \quad \mathrm{F}=9$ Ï $50=\mathbf{- 4 1}$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.
6. $F=3 x$ ï $5 y$

$$
\mathrm{F}_{\max }=\ldots \text { at }
$$

$\qquad$
$\mathrm{F}_{\text {min }}=$ $\qquad$ at $\qquad$
At $(3,10) \quad \mathrm{F}=9$ Ï $50=\mathbf{- 4 1}$
At $(-3,8) \quad \mathrm{F}=-9 \ddot{i} 40=\mathbf{- 4 9}$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.
6. $F=3 x$ ï $5 y$

$$
\mathrm{F}_{\max }=\ldots \text { at }
$$

$$
\mathrm{F}_{\min }=
$$

$\qquad$ at $\qquad$

$$
\begin{aligned}
& \text { At }(3,10) \quad \Longrightarrow \mathrm{F}=9 \text { ї } 50=\mathbf{- 4 1} \\
& \text { At }(-3,8) \quad \mathrm{F}=-9 \ddot{\mathrm{i}} 40=\mathbf{- 4 9} \\
& \text { At }(-3,3) \quad \mathrm{F}=-9 \ddot{ } \quad 15=\mathbf{- 2 4}
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.
6. $F=3 x$ ï $5 y$

$$
\mathrm{F}_{\max }=\ldots \text { at }
$$

$$
\mathrm{F}_{\min }=\ldots \text { at }
$$

$\qquad$

$$
\begin{aligned}
& \text { At }(3,10) \quad \Longrightarrow \mathrm{F}=9 \text { ї } 50=\mathbf{- 4 1} \\
& \text { At }(-3,8) \quad \mathrm{F}=-9 \ddot{\mathrm{i}} 40=\mathbf{- 4 9} \\
& \text { At }(-3,3) \quad \mathrm{F}=-9 \ddot{ } \quad 15=\mathbf{- 2 4} \\
& \text { At }(3,-3) \quad \mathrm{F}=9 \ddot{\mathrm{i}}-15=\mathbf{2 4}
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.
6. $F=3 x$ ï $5 y$

$$
\mathrm{F}_{\max }=\ldots \text { at }
$$

$\qquad$
$\mathrm{F}_{\text {min }}=$ $\qquad$ at $\qquad$ At $(3,10) \quad \mathrm{F}=9$ Ï $50=\mathbf{- 4 1}$ At $(-3,8) \quad \mathrm{F}=-9$ Ï $40=\mathbf{- 4 9}$

At $(-3,3) \quad \mathrm{F}=-9 \ddot{\mathrm{I}} 15=\mathbf{- 2 4}$ At $(3,-3) \quad \mathrm{F}=9$ ї $-15=\mathbf{2 4}$

$$
\text { At }(12.75,3.5) \Longleftrightarrow F=38.25 \text { ï } 17.5=\mathbf{2 0 . 7 5}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.
6. $F=3 x$ ï $5 y$

$$
F_{\max }=24 \text { at } \quad(3,-3)
$$

$$
\mathrm{F}_{\min }=\ldots \text { at }
$$

$\qquad$
At $(3,10) \quad \mathrm{F}=9$ Ï $50=\mathbf{- 4 1}$
At $(-3,8) \quad \mathrm{F}=-9$ Ï $40=\mathbf{- 4 9}$
At $(-3,3) \quad \mathrm{F}=-9 \ddot{\mathrm{I}} 15=\mathbf{- 2 4}$
At $(3,-3) \quad \mathrm{F}=9$ ї $-15=\mathbf{2 4}$

$$
\text { At }(12.75,3.5) \Longleftrightarrow \mathrm{F}=38.25 \text { ї } 17.5=\mathbf{2 0 . 7 5}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.
6. $F=3 x$ ï $5 y$

$$
\begin{array}{ll}
F_{\max }=-24 & \text { at } \longrightarrow(3,-3) \\
F_{\min }=-49 & \text { at } \frac{(-3,8)}{}
\end{array}
$$

$$
\text { At }(3,10) \quad \mathrm{F}=9 \ddot{\mathrm{I}} 50=\mathbf{- 4 1}
$$

$$
\text { At }(-3,8) \Longleftrightarrow \mathrm{F}=-9 \ddot{i} 40=-49
$$

$$
\text { At }(-3,3) \Longleftrightarrow \mathrm{F}=-9 \ddot{\mathrm{I}} 15=\mathbf{- 2 4}
$$

$$
\text { At }(3,-3) \quad \mathrm{F}=9 \ddot{\mathrm{i}}-15=\mathbf{2 4}
$$

$$
\text { At }(12.75,3.5) \Longleftrightarrow \mathrm{F}=38.25 \text { ï } 17.5=\mathbf{2 0 . 7 5}
$$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $F$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 7. } \quad \mathrm{F}=3 \mathrm{x}+\mathrm{y} \\
& \mathrm{~F}_{\max }=-\quad \text { at } \\
& \mathrm{F}_{\min }=\quad \text { at }
\end{aligned}
$$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $F$ will occur at a vertex of the region.

```
    7. \(F=3 x+y\)
    \(\mathrm{F}_{\text {max }}=\ldots\) at
    \(\mathrm{F}_{\text {min }}=\)
```

$\qquad$

``` at
\(\operatorname{At}(3,10) \quad \mathrm{F}=9+10=\mathbf{1 9}\)
```


## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.

$$
\begin{aligned}
\text { 7. } \mathrm{F} & =3 \mathrm{x}+\mathrm{y} \\
\mathrm{~F}_{\max } & =\longrightarrow \text { at } \\
\mathrm{F}_{\min } & =\longrightarrow \text { at } \\
\text { At }(3,10) & \Longrightarrow \mathrm{F}=9+10=\mathbf{1 9} \\
\text { At }(-3,8) & \Longrightarrow \mathrm{F}=-9+8=\mathbf{- 1}
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 7. } \quad \mathrm{F}=3 \mathrm{x}+\mathrm{y} \\
& \mathrm{~F}_{\max }=\ldots
\end{aligned}
$$

$$
\mathrm{F}_{\min }=\ldots \quad \text { at }
$$

$\qquad$

$$
\begin{aligned}
& \text { At }(3,10) \quad \Longleftrightarrow \mathrm{F}=9+10=\mathbf{1 9} \\
& \text { At }(-3,8) \quad \Longleftrightarrow \mathrm{F}=-9+8=\mathbf{- 1} \\
& \text { At }(-3,3) \quad \Longleftrightarrow \mathrm{F}=-9+3=\mathbf{- 6}
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $F$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 7. } \quad \mathrm{F}=3 \mathrm{x}+\mathrm{y} \\
& \mathrm{~F}_{\max }=\quad
\end{aligned}
$$

$$
\mathrm{F}_{\min }=\ldots \text { at }
$$

$\qquad$

$$
\begin{aligned}
& \text { At }(3,10) \quad \Longleftrightarrow \mathrm{F}=9+10=\mathbf{1 9} \\
& \text { At }(-3,8) \quad \Longleftrightarrow \mathrm{F}=-9+8=\mathbf{- 1} \\
& \text { At }(-3,3) \quad \Longleftrightarrow \mathrm{F}=-9+3=\mathbf{- 6} \\
& \text { At }(3,-3) \quad \Longleftrightarrow \mathrm{F}=9+-3=\mathbf{6}
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 7. } \quad \mathrm{F}=3 \mathrm{x}+\mathrm{y} \\
& \mathrm{~F}_{\max }=
\end{aligned}
$$ at $\qquad$

$\mathrm{F}_{\text {min }}=\ldots$ at $\qquad$

$$
\begin{aligned}
& \text { At }(3,10) \quad \Longleftrightarrow \mathrm{F}=9+10=\mathbf{1 9} \\
& \text { At }(-3,8) \quad \Longleftrightarrow \mathrm{F}=-9+8=\mathbf{- 1} \\
& \text { At }(-3,3) \quad \Longleftrightarrow \mathrm{F}=-9+3=\mathbf{- 6} \\
& \text { At }(3,-3) \quad \Longleftrightarrow \mathrm{F}=9+-3=\mathbf{6}
\end{aligned}
$$

$$
\text { At }(12.75,3.5) \Longleftrightarrow \mathrm{F}=38.25+3.5=\mathbf{4 1 . 7 5}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 7. } \quad \mathrm{F}=3 \mathrm{x}+\mathrm{y} \\
& \mathrm{~F}_{\max }=\underline{\mathbf{4 1 . 7 5}} \text { at }(\mathbf{1 2 . 7 5 , 3 . 5 )} \\
& \mathrm{F}_{\min }=-\quad \text { at }
\end{aligned}
$$

$$
\begin{aligned}
& \text { At }(3,10) \quad \Longleftrightarrow \mathrm{F}=9+10=\mathbf{1 9} \\
& \text { At }(-3,8) \quad \Longleftrightarrow \mathrm{F}=-9+8=\mathbf{- 1} \\
& \text { At }(-3,3) \quad \Longleftrightarrow \mathrm{F}=-9+3=\mathbf{- 6} \\
& \text { At }(3,-3) \quad \Longleftrightarrow \mathrm{F}=9+-3=\mathbf{6}
\end{aligned}
$$

$$
\text { At }(12.75,3.5) \Longleftrightarrow \mathrm{F}=38.25+3.5=\mathbf{4 1 . 7 5}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 7. } \quad F=3 x+y \\
& F_{\max }=\underline{41.75} \text { at } \underline{(\mathbf{1 2 . 7 5 , 3 . 5 )}} \\
& F_{\min }=-\mathbf{- 6} \text { at } \frac{(-3,3)}{}
\end{aligned}
$$

$$
\text { At }(3,10) \Longleftrightarrow \mathrm{F}=9+10=\mathbf{1 9}
$$

$$
\text { At }(-3,8) \Longleftrightarrow \mathrm{F}=-9+8=\mathbf{- 1}
$$

$$
\text { At }(-3,3) \Longleftrightarrow \mathrm{F}=-9+3=\mathbf{- 6}
$$

$$
\text { At }(3,-3) \quad \mathrm{F}=9+-3=6
$$

$$
\text { At }(12.75,3.5) \Longleftrightarrow \mathrm{F}=38.25+3.5=\mathbf{4 1 . 7 5}
$$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $F$ will occur at a vertex of the region.
8. $F=4 x$ ï $2 y$
$\mathrm{F}_{\text {max }}=$ at $\qquad$
$\mathrm{F}_{\text {min }}=$ $\qquad$ at $\qquad$

General Algebra II CWS \#1 Unit 5


The maximum and the minimum values of $F$ will occur at a vertex of the region.

$$
\begin{gathered}
\text { 8. } \mathrm{F}=4 \mathrm{x} \text { ï } 2 \mathrm{y} \\
\mathrm{~F}_{\max }= \\
\mathrm{F}_{\min }= \\
\text { At }(3,10) \quad \text { at } \quad \text { at } \square \mathrm{F}=12 \mathrm{i} \quad 20=\mathbf{- 8}
\end{gathered}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 8. } \mathrm{F}=4 \mathrm{x} \text { ï } 2 \mathrm{y} \\
& \mathrm{~F}_{\max }= \\
& \mathrm{F}_{\min }= \\
& \text { at } \\
& \text { at } \\
& \text { At }(3,10) \Longrightarrow \mathrm{F}=12 \mathrm{i} \quad 20=\mathbf{- 8} \\
& \text { At }(-3,8) \Longrightarrow \mathrm{F}=-12 \mathrm{i} \quad 16=\mathbf{- 2 8}
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.
8. $F=4 x$ ï 2 y
$\mathrm{F}_{\text {max }}=\ldots \quad$ at
$\mathrm{F}_{\text {min }}=$ $\qquad$ at $\qquad$

$$
\begin{aligned}
& \text { At }(3,10) \quad \Longleftrightarrow \mathrm{F}=12 \ddot{\mathrm{i}} 20=\mathbf{- 8} \\
& \text { At }(-3,8) \quad \Longleftrightarrow \mathrm{F}=-12 \ddot{\mathrm{i}} 16=\mathbf{- 2 8} \\
& \text { At }(-3,3) \quad \Longleftrightarrow \mathrm{F}=-12 \ddot{\mathrm{i}} 6=\mathbf{- 1 8}
\end{aligned}
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $F$ will occur at a vertex of the region.
8. $F=4 x$ Ï $2 y$
$\mathrm{F}_{\text {max }}=\ldots \quad$ at
$\mathrm{F}_{\text {min }}=\ldots$ at
$\qquad$

At $(3,10) \Longrightarrow F=12$ ï $20=\mathbf{- 8}$
At $(-3,8) \Longrightarrow \mathrm{F}=-12 \ddot{ } 16=\mathbf{- 2 8}$
At $(-3,3) \quad F=-12$ ï $6=\mathbf{- 1 8}$
At $(3,-3) \quad \mathrm{F}=12 \ddot{\mathrm{i}}-6=\mathbf{1 8}$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $F$ will occur at a vertex of the region.
8. $F=4 x$ Ï $2 y$
$\mathrm{F}_{\text {max }}=\ldots \quad$ at $\qquad$
$\mathrm{F}_{\text {min }}=$ $\qquad$ at $\qquad$
At $(3,10) \quad \Longrightarrow \mathrm{F}=12$ ï $20=\mathbf{- 8}$
At $(-3,8) \Longrightarrow \mathrm{F}=-12 \ddot{ } 16=\mathbf{- 2 8}$
At $(-3,3) \quad \mathrm{F}=-12 \ddot{\mathrm{I}} 6=\mathbf{- 1 8}$
At $(3,-3) \quad \mathrm{F}=12 \ddot{\mathrm{i}}-6=\mathbf{1 8}$
At $(12.75,3.5) \Longleftrightarrow \mathrm{F}=51 \mathrm{I} 7=44$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $F$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 8. } \quad \mathrm{F}=4 \mathrm{x} \text { Ï } 2 \mathrm{y} \\
& \mathrm{~F}_{\max }=\underline{\mathbf{4 4}} \text { at }(\mathbf{1 2 . 7 5 , 3 . 5 )} \\
& \mathrm{F}_{\min }=
\end{aligned}
$$

At $(3,10) \quad \Longrightarrow \mathrm{F}=12$ ï $20=\mathbf{- 8}$
At $(-3,8) \quad \mathrm{F}=-12 \mathrm{i} 16=\mathbf{- 2 8}$
At $(-3,3) \quad \mathrm{F}=-12 \ddot{\mathrm{I}} 6=\mathbf{- 1 8}$
At $(3,-3) \quad \mathrm{F}=12 \ddot{\mathrm{I}}-6=\mathbf{1 8}$

$$
\text { At }(12.75,3.5) \Longleftrightarrow \mathrm{F}=51 \text { ї } 7=44
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of $F$ will occur at a vertex of the region.

$$
\begin{aligned}
& \text { 8. } \quad F=4 x \text { Ï } 2 y \\
& F_{\max }=\underline{44} \text { at }(\mathbf{1 2 . 7 5 , 3 . 5 )} \\
& F_{\min }=-\mathbf{- 2 8} \text { at }(-3,8)
\end{aligned}
$$

$$
\text { At }(3,10) \Longleftrightarrow F=12 \text { ï } 20=\mathbf{- 8}
$$

$$
\text { At }(-3,8) \Longleftrightarrow F=-12 \ddot{ } 16=\mathbf{- 2 8}
$$

$$
\text { At }(-3,3) \Longleftrightarrow F=-12 \ddot{i} 6=\mathbf{- 1 8}
$$

$$
\text { At }(3,-3) \quad \mathrm{F}=12 \ddot{\mathrm{I}}-6=\mathbf{1 8}
$$

$$
\operatorname{At}(12.75,3.5) \Longleftrightarrow \mathrm{F}=51 \text { Ï } 7=44
$$

## General Algebra II CWS \#1 Unit 5



The maximum and the minimum values of F will occur at a vertex of the region.

$$
\text { 8. } F=4 x \text { ï } 2 y
$$

Good luck on your homework !!


At $(3,10) \Longrightarrow \mathrm{F}=12 \mathrm{I} 20=\mathbf{- 8}$
At $(-3,8) \Longrightarrow \mathrm{F}=-12 \ddot{\mathrm{I}} 16=\mathbf{- 2 8}$
At $(-3,3) \quad \mathrm{F}=-12$ ï $6=\mathbf{- 1 8}$
At $(3,-3) \quad \mathrm{F}=12 \ddot{\mathrm{i}}-6=\mathbf{1 8}$
$\operatorname{At}(12.75,3.5) \Longleftrightarrow \mathrm{F}=51$ ї $7=44$

