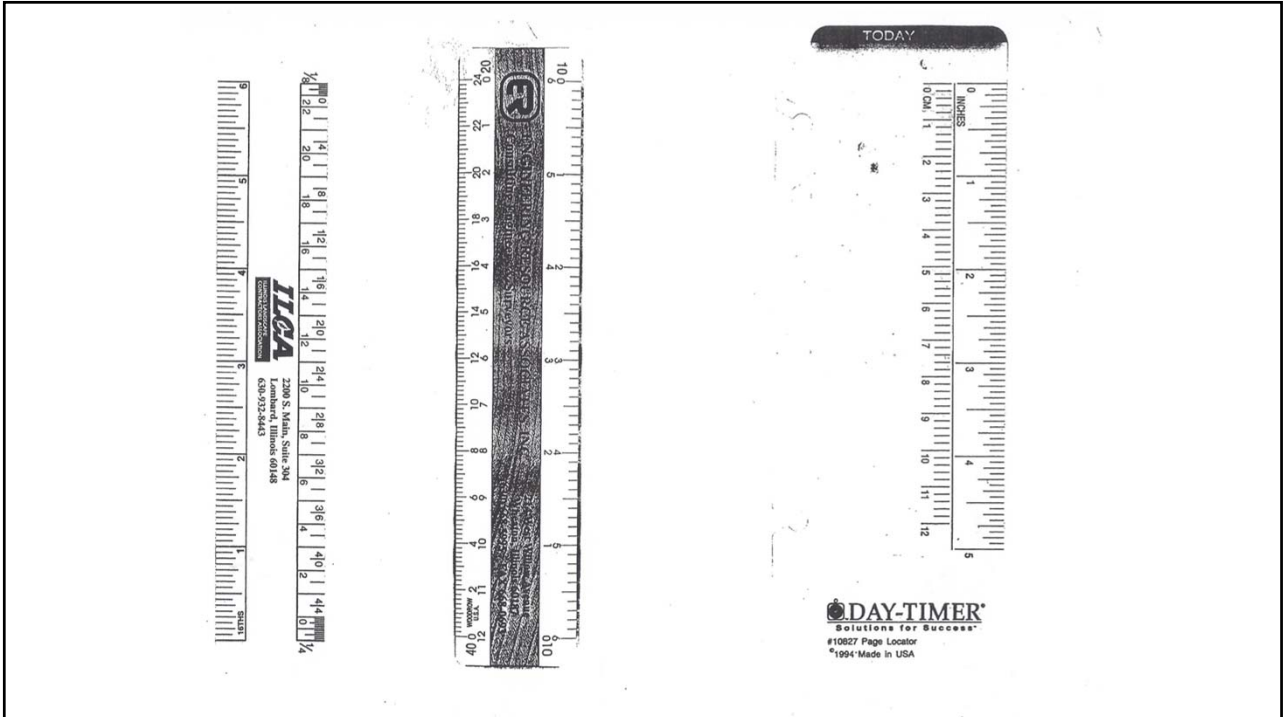



## FIVE MATH RULES THAT RULE THE LANDSCAPE UNIVERSE


1. Length X Width = Square Feet
2. Length X Width divided by 9 = Square Yards
3. Length X Width X Height = Cubic Feet
4. Length X Width X Height divided by 27 = Cubic Yards
5. Cubic Yards X 1.5 = Tons




**PLANT LAYOUT PROBLEM SHEET**

Determine each lines length according to the scale give.




A. Scale is  $1/4"=1'-0"$  Answer:   


B. Scale is  $1/8"=1'-0"$  Answer:   


C. Scale is  $1"=10'-0"$  Answer:   


Determine each lines lenght according to the scale given.


A. Scale is  $1/4"=1'-0"$  B. Scale is  $1/8"=1'-0"$  C. Scale is  $1"=10'-0"$


 Answer:   
 Answer:   
 Answer:


Always **DOUBLE CHECK** all answers!!

**PLAN READING**  
**EXERCISE #1 - PRACTICE USING A SCALE**


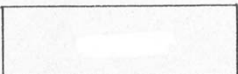
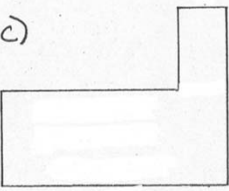
USING A  $1/8"=1.0'$  SCALE, DETERMINE THE LENGTH OF EACH OF THESE LINES:

A) 

B) 

C) 

USING A  $1/8"=1.0'$  SCALE, DETERMINE THE LENGTH AND WIDTH OF EACH OBJECT.

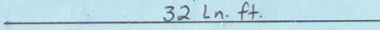
A)  B)  C) 

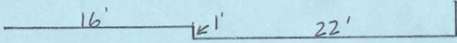
TO DETERMINE THE 'AREA' OF EACH OBJECT, MULTIPLY LENGTH  $\times$  WIDTH.

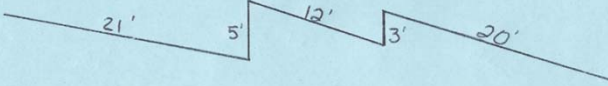
### PLAN READING

EXERCISE #1 - PRACTICE USING A SCALE

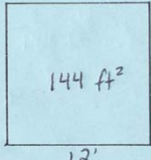
USING A  $\frac{1}{8}'' = 1.0'$  SCALE, DETERMINE THE LENGTH OF EACH OF THESE LINES:

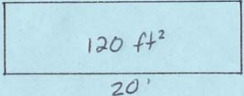
A)  = 32' Ln. ft.

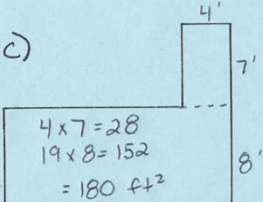
B)  = 42 Ln. ft.

C)  = 61 Ln. ft.

USING A  $\frac{1}{8}'' = 1.0'$  SCALE, DETERMINE THE LENGTH AND WIDTH OF EACH OBJECT.

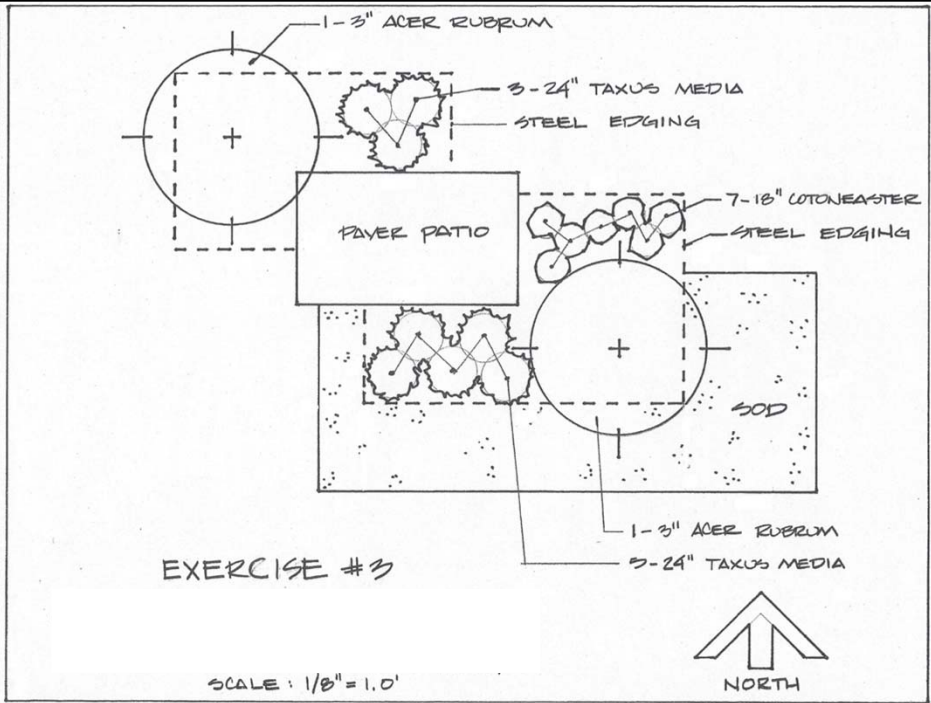
A)  12' x 12' = 144 ft<sup>2</sup>

B)  20' x 6' = 120 ft<sup>2</sup>

C)  4' x 7' = 28  
19' x 8' = 152  
= 180 ft<sup>2</sup>

TO DETERMINE THE 'AREA' OF EACH OBJECT, MULTIPLY LENGTH x WIDTH.

### EXERCISE #3



1-3" ACER RUBRUM

3-24" TAXUS MEDIA

STEEL EDGING

7-18" LITNEASTER

STEEL EDGING

1-3" ACER RUBRUM

3-24" TAXUS MEDIA

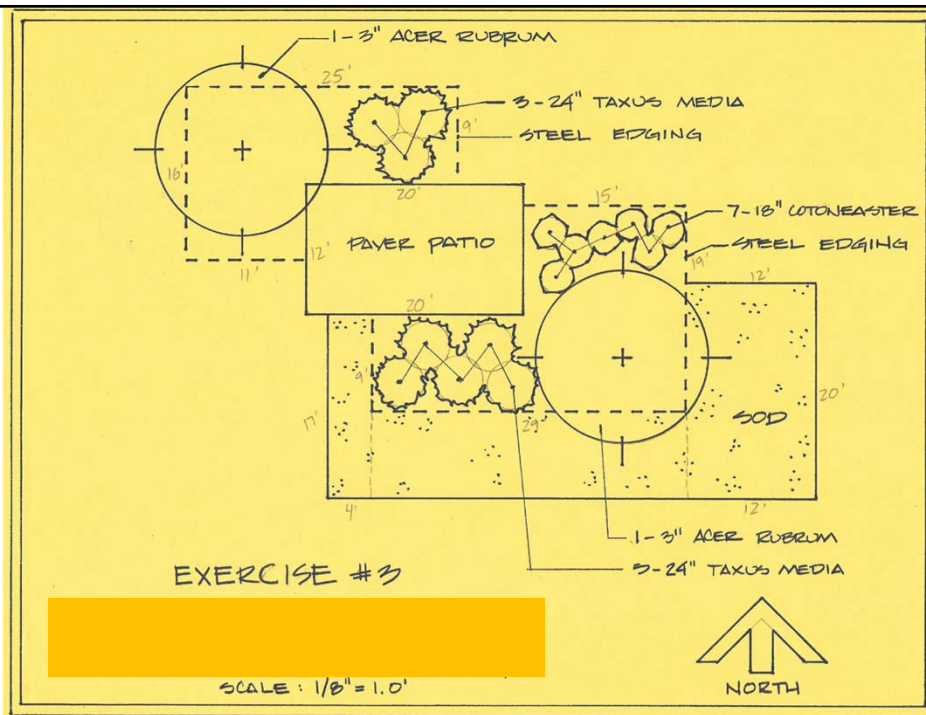
SCALE:  $\frac{1}{8}'' = 1.0'$

NORTH

## Landscape Plan Exercise #3

**OBJECTIVE:** Practice scale measurement, area calculations, material estimating and to become more familiar with reading landscape plans.

- 1) How many scale feet does one inch represent on this plan?
- 2) How many linear feet of steel edging are shown on this plan?
- 3) What is the area, expressed in square feet (sq.ft.) of the paver patio?
- 4) How many tons of gravel would be required to create a 4" deep base under the paver patio? (one cubic yard of gravel weighs 1 ½ tons)
- 5) How many square yards (sq. yd.) of sod are required for the area designated for sod?
- 6) How many Evergreen shrubs are shown on the south side of the patio?
- 7) What is the area, expressed in square feet (sq. ft.) of the two planting beds?
- 8) How many cubic yards (cu. yd.) of mulch would be required to cover the two planting beds at a depth of two inches?
- 9) How many stakes would be required to triple stake the Red Maples?
- 10) How many cubic yards (cu. yd.) of soil applied at a depth of six inches would be required for the area designated for sod?

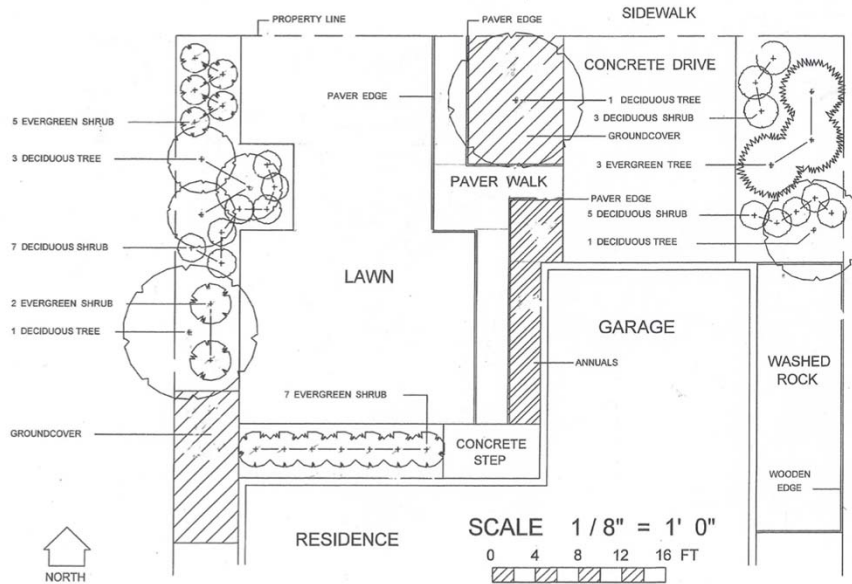


Landscape Plan Exercise #3

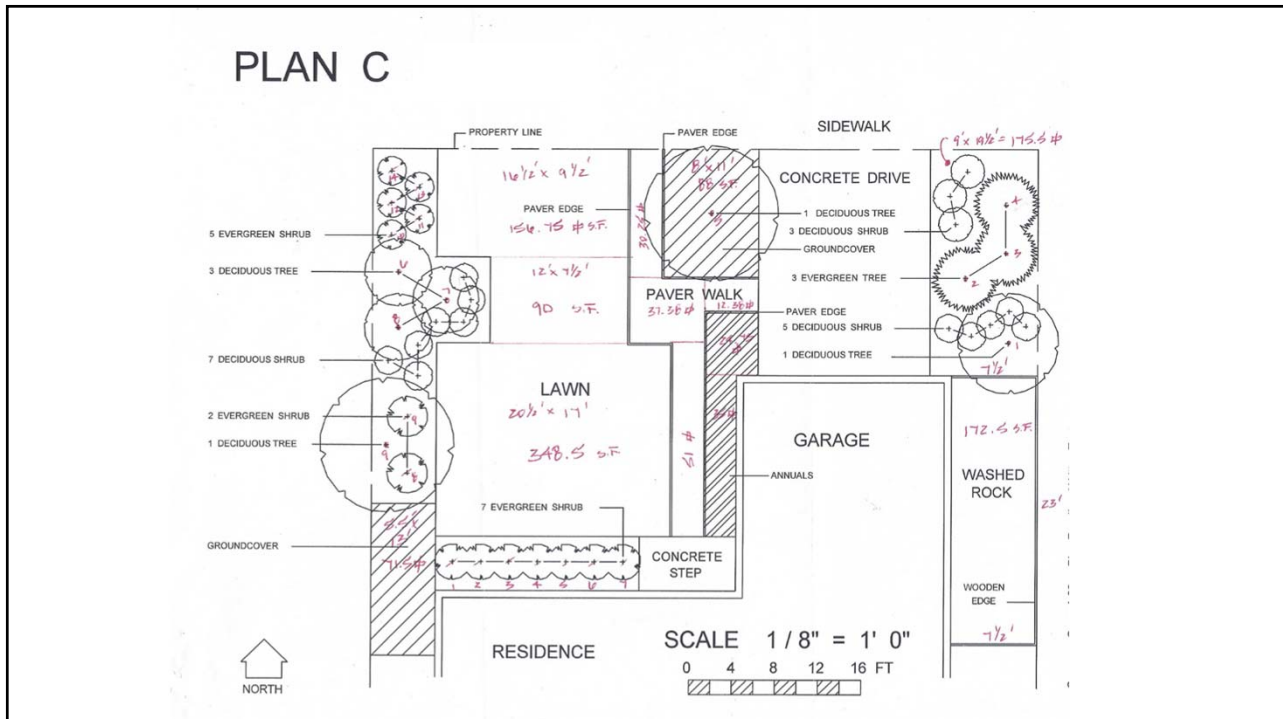
**OBJECTIVE:** Practice scale measurement, area calculations, material estimating and to become more familiar with reading landscape plans.

- 1) How many scale feet does one inch represent on this plan?  
*A = 8 scale ft.*
- 2) How many linear feet of steel edging are shown on this plan?  
*A = 133 Ln ft of steel edging*
- 3) What is the area, expressed in square feet (sq.ft.) of the paver patio?  
*A = 240 ft<sup>2</sup>*
- 4) How many tons of gravel would be required to create a 4" deep base under the paver patio? (one cubic yard of gravel weighs 1 1/2 tons)  
*A = 4.35 Tons of gravel*
- 5) How many square yards (sq. yd.) of sod are required for the area designated for sod?  
*A = 60 yds<sup>2</sup> of sod.*
- 6) How many Evergreen shrubs are shown on the south side of the patio?  
*A = 5 (24") taxus media*
- 7) What is the area, expressed in square feet (sq. ft.) of the two planting beds?  
*A = 713 ft<sup>2</sup>*
- 8) How many cubic yards (cu. yd.) of mulch would be required to cover the two planting beds at a depth of two inches?  
*A = 4.2 cu. yds. of mulch.*
- 9) How many stakes would be required to triple stake the Red Maples?  
*A = 2 x 3 = 6 = 6 stakes*
- 10) How many cubic yards (cu. yd.) of soil applied at a depth of six inches would be required for the area designated for sod?  
*A = 9.71 cu. yds of soil*

PLAN C



1. How many lineal feet of wooden edging are required?  
¿Cuántos pies lineales de borde de madera se necesitan?
2. How many tons of washed rock are required for the area along the garage? The washed rock is 4" deep. One cubic yard of rock weighs 1-1/2 tons.  
¿Cuántas toneladas de piedra lavada se necesitan para el área del garaje? La piedra lavada tiene 4 pulgadas de profundidad. Una yarda cúbica de piedra pesa una tonelada y media.
3. How many square feet of lawn area are shown on the plan?  
¿Cuántos pies cuadrados de área de césped se muestran en el plano?
4. How many square feet of pavers are required?  
¿Cuántos pies cuadrados de empedrado se necesitan?
5. How many lineal feet of edging are required along the pavers?  
¿Cuántos pies lineales de bordes se necesitan para el área del empedrado?
6. How many cubic yards of compost are required to amend the groundcover beds? The compost is 3" deep.  
¿Cuántas yardas cúbicas de abono orgánico se necesitan para abonar la cubierta vegetal (groundcover) de las camas de plantas? El abono orgánico tiene tres pulgadas de profundidad.
7. If all of the trees were specified to be triple staked, how many stakes would be necessary?  
Si hubiera que colocarle tres estacas a todos los árboles, ¿cuántas estacas se necesitarían?
8. How many evergreen shrubs are required?  
¿Cuántos arbustos de hojas perennes se necesitan?
9. How many flats of annuals are required? The plants are spaced 12" on center. There are 15 plants per flat.  
¿Cuántas bandejas de plantas anuales se necesitan? Las plantas tienen una separación de 12" pulgadas del centro. Hay 15 plantas en cada bandeja.
10. How many cubic yards of mulch are required for the east planting bed? The mulch is 2" deep.  
¿Cuántas yardas cúbicas de pajote (mulch) se necesitan para la cama del este? El pajote (mulch) tiene 2" pulgadas de profundidad.



WRITTEN TEST - Answer Sheet  
Time Allowed: 30 minutes

EXAMEN ESCRITO - Hoja de Respuestas  
Tiempo Permitido: 30 minutos

1. 30 L.F. OF WOODEN EDGING
2. 2.87 TONS WASHED ROCK 4" DEEP
3. 695 LBS OF SEED
4. 131 S.F. OF PAPER
5. 82 L.F. OF EDGING ALONG PAPER
6. .81 C.Y. + .66 C.Y. = 1.47 C.Y. OF COMPOST.
7. 9 TREES x 3 STAKES EA = 27 TREE STAKES.
8. 14 EVERGREEN SHRUBS
9.  $39.75 \text{ S.F.} \div 1' \text{ O.C.} = 39.75 \text{ PLANTS} \div 15/\text{FEET} = 2.65$  OF 4 PLANTS OF ANIMALS.
10. 1.08 C.Y. OF MANURE.