

## 2019 MN Nursery & Landscape State FFA CDE Pruning Practicum - 50 pts.

Choose a group for each plant given the descriptions below (3 pts. each)

**Choose only one group per plant.**

**Group A** - Shrubs grown for their foliage should be pruned in spring before growth begins.

**Group B** - Plants that bloom early in the growing season on last year's branches. Prune these plants immediately after blossoming.

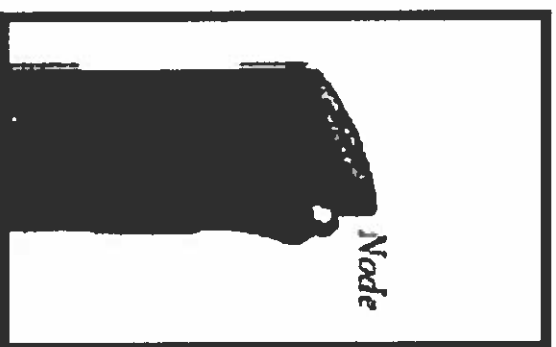
**Group C** - Plants with free-flowing sap that often "bleeds" after pruning in late winter. Prune these plants later in spring or early summer to avoid.

**Group D** - Plants that should be pruned in late winter to avoid disease transmission

	Group A	Group B	Group C	Group D
1. PJM Rhododendron				
2. Common Lilac				
3. Dogwood				
4. Forsythia				
5. Honeysuckle				
6. Northern Pin Oak				
7. Mountain Ash				
8. Bur oak				
9. Sugar Maple				
10. Spirea				

2019 MN Nursery & Landscape State FFA CDE  
Pruning Practicum - 50 pts.

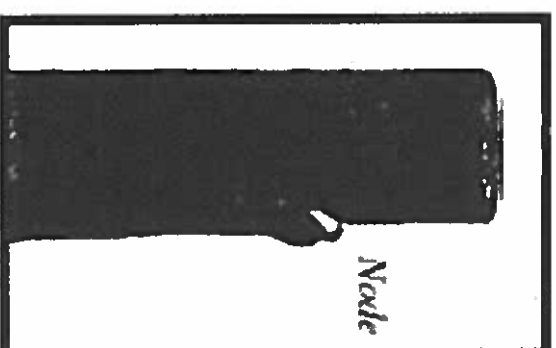
11. Which image depicts the correct way to make a heading cut to a node or bud?  
(5 pts)



A



B



C

Match each pruning cut type with the correct description (3 pts. each)

- 12. Removing a branch to parent limb of larger diameter.
- 13. Removing a branch back to a lateral branch with a diameter at least  $\frac{1}{3}$  of the parent limb, ideally  $\frac{1}{2}$  diameter of the parent limb.
- 14. Removing branch back to a lateral branch less than  $\frac{1}{3}$  diameter of parent or to a node.

- A. Reduction cut
- B. Thinning cut
- C. Heading cut

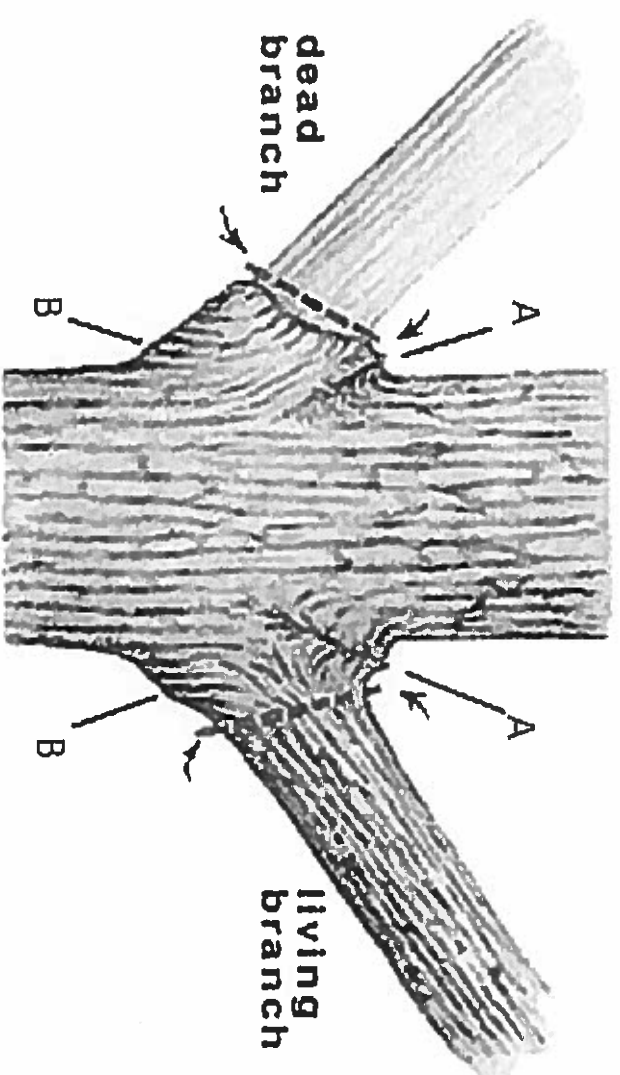
**2019 MN Nursery & Landscape State FFA CDE  
Pruning Practicum - 50 pts.**

15. Define structure 'A' in the image below (3 pts.)

- A. Twig temporal zone
- B. Branch bark ridge
- C. Tree attachment peak
- D. Trunk bark ridge

16. Define structure 'B' in the image below (3 pts.)

- A. Tree trunk
- B. Twig attachment system
- C. Branch collar
- D. Branch bark ridge



**2019 MN Nursery Landscape State FFA CDE  
Retaining wall practicum - 50 pts.**

**Determine the amount of materials or costs associated  
with the installation of block walls described below**

---

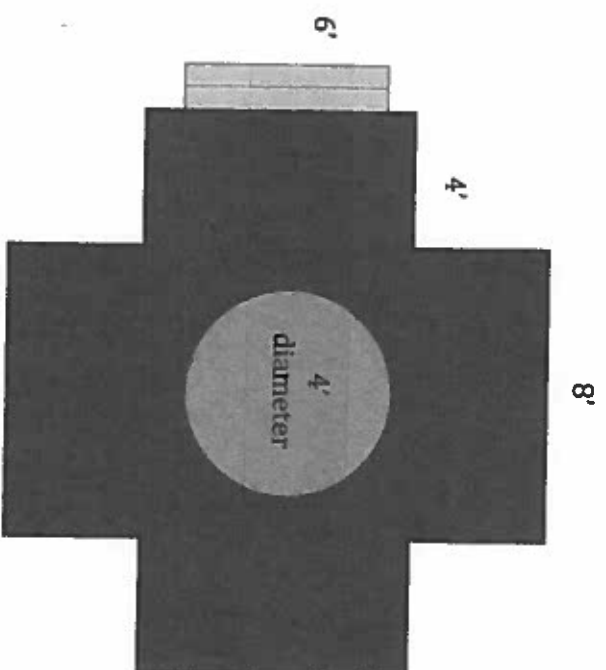
A homeowner has contracted your company to install a raised patio with a fire pit in the center. Both the patio and fire pit will need retaining walls surrounding them to create the space. For stability, the raised patio walls will have one course buried. In addition to the retaining walls, steps will need to be installed utilizing step blocks. The picture below is not to scale, use the provided dimensions to answer the questions.

\*The height of all the walls for the patio are 3 feet

\*The height of the wall for the fire pit is 2 feet

\*The steps will extend from the ground to the finished height of the raised patio

\*Assume no partial blocks will be used



**Raised Patio Retaining wall block dimensions - 6" H x 12" W x 10" D (\$7.29)**

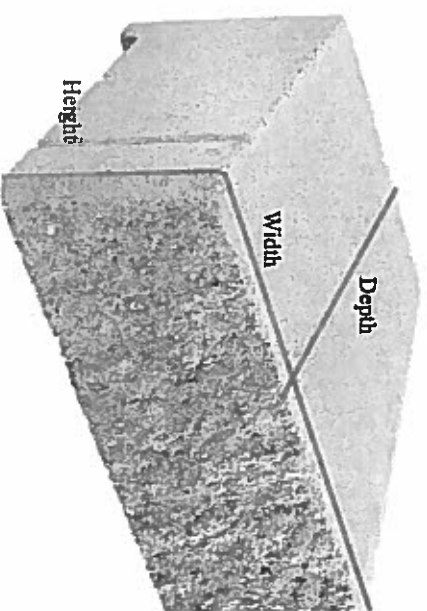
**Fire Pit Retaining wall block dimensions - 6" H x 6" W x 10" D (\$6.59)**

**Step block dimensions - 6" H x 16" W x 12" D (\$8.39)**

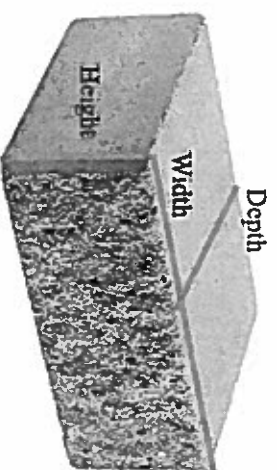
**2019 MN Nursery & Landscape State FFA CDE  
Retaining Wall Practicum - 50 pts.**

**References**

**Retaining Wall Block**



**Step Block**



**2019 MN Nursery & Landscape State FFA CDE  
Retaining Wall Practicum - 50 pts.**

1. Raised patio retaining walls-number of blocks \_\_\_\_\_5pts

- A. 288
- B. 386
- C. 224
- D. 336

2. Fire pit retaining wall-number of blocks \_\_\_\_\_5pts

- A. 32
- B. 101
- C. 44
- D. 51

3. Steps-number of blocks \_\_\_\_\_5pts

- A. 72
- B. 36
- C. 27
- D. 52

4. Raised patio retaining walls cost \_\_\_\_\_5pts

- A. \$2,099.52
- B. \$2,449.44
- C. \$2,813.94
- D. \$1632.96

5. Fire pit retaining wall cost \_\_\_\_\_5pts

- A. \$415.17
- B. \$289.96
- C. \$665.59
- D. \$336.09

6. Steps cost \_\_\_\_\_5pts

- A. \$226.53
- B. \$604.08
- C. \$436.28
- D. \$302.04

**2019 MN Nursery & Landscape State FFA CDE  
Retaining Wall Practicum - 50 pts.**

The area where the patio will be installed will need to be filled and compacted with class 5 gravel to provide a solid base for paver installation.

7. Determine how many yards of class 5 will be needed to backfill to a level 3.5" below the top of the wall. Include 10% for waste and compaction. Round to the nearest whole yard. 5 pts.

- A. 14
- B. 21
- C. 38
- D. 16

8. If Class 5 costs \$18 per yard what will be the total cost? \_\_\_\_\_ 5 pts.

- A. \$252.00
- B. \$378.00
- C. \$691.20
- D. \$288.00

Your crew of 4 people can prep and install the project in two 8 hour days.

9. If the hourly rate for each crew member is \$38 per hour, what will be the cost for the labor? 5 pts.

- A. \$ 2,432.00
- B. \$ 1,216.00
- C. \$ 608.00
- D. \$ 2,432.00

10. What is the total cost of the project, including labor and materials? 5 pts.

- A. \$ 5,801.64
- B. \$ 4,585.64
- C. \$ 4,147.90
- D. \$ 7,206.61

*Exam 2*

**2019 MN Nursery & Landscape State FFA CDE  
Pruning Practicum - 50 pts.**

Key:

1. B
2. B
3. A
4. B
5. A
6. D
7. D
8. D
9. C
10. A
11. A
12. B
13. A
14. C
15. B
16. C



**2019 MN Nursery & Landscape State FFA CDE  
Retaining Wall Practicum - 50 pts.**

KEY:

1. Raised patio walls number of blocks =  
 $4'+4'+4'+4' = 16'$  linear  
 $8'+8'+8'+8' = 32'$  linear  
 $32'+16' = 48'$  linear \* 3.5' Height of walls = 168 sq.ft.  
Each block = 0.5 sq. ft.  
 $168 \text{ sq.ft.} / 0.5 \text{ sq.ft.} = \mathbf{336 \text{ blocks (D)}}$
2. Fire pit retaining wall-number of blocks=  
 $4'$  diameter \* 3.14 = 12.56' circumference  
 $12.6'$  linear \* 2' height of wall = 25.2 sq. ft.  
Each block = 0.25 sq.ft.  
 $25.2 \text{ sq. ft.} / 0.25 \text{ sq.ft.} = 100.8$  or **101 blocks (B)**
3. Steps-number of blocks =  
 $6'$  width per step / 1.333' width per block = 4.5 blocks per step \* 6 steps to top = 27 blocks  
Each block = 0.666 sq. ft.  
 $18 \text{ sq.ft.} / 0.666 \text{ sq.ft.} = \mathbf{27 \text{ blocks (C)}}$
4. Raised patio retaining walls cost =  
 $336 * \$7.29/\text{block} = \mathbf{\$2,449.44 (B)}$
5. Fire pit retaining wall cost=  
 $101 * \$6.59/\text{block} = \mathbf{\$665.59 (C)}$
6. Steps cost =  
 $27 * \$8.39 = \mathbf{\$226.53 (A)}$
7. Class 5 yards =  
Patio area is  $8' * 4' = 32 \text{ sq.ft.}$  \* 4 = 128 sq.ft.  
 $8' * 8' = 64 \text{ sq.ft.}$   
 $128 \text{ sq.ft.} + 64 \text{ sq.ft.} = 192 \text{ sq.ft.}$   
Area to be filled:  $36'' - 3.5'' = 32.5'' / 12'' = 2.71'$   
 $192 \text{ sq.ft.} * 2.71' = 520.32 \text{ cu.ft.}$   
 $520.32 \text{ cu.ft.} / 27 \text{ cu.ft. per cu.yd} = 19.27 \text{ yards} * 1.1 = \mathbf{21.19}$  or 21 yards (B)
8. Cost:  $21 * \$18/\text{yard} = \mathbf{\$378.00 (B)}$
9. Labor cost = 4 people \* 16 labor hours \* \$38.00/hour = **\$2,432.00 (A)**
10.  $\$2,099.52 + \$665.59 + \$226.53 + \$378.00 + \$2,432.00 = \mathbf{\$5,801.64 (A)}$