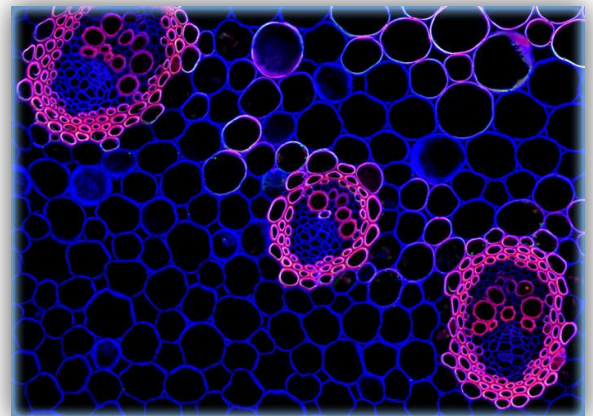




Panduan Belajar Siswa

## Edisi Anatomi Tumbuhan



Kelas XI-IPA

Disusun oleh :

Sf. Eko Yulianto, S. Si

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Biology 😊



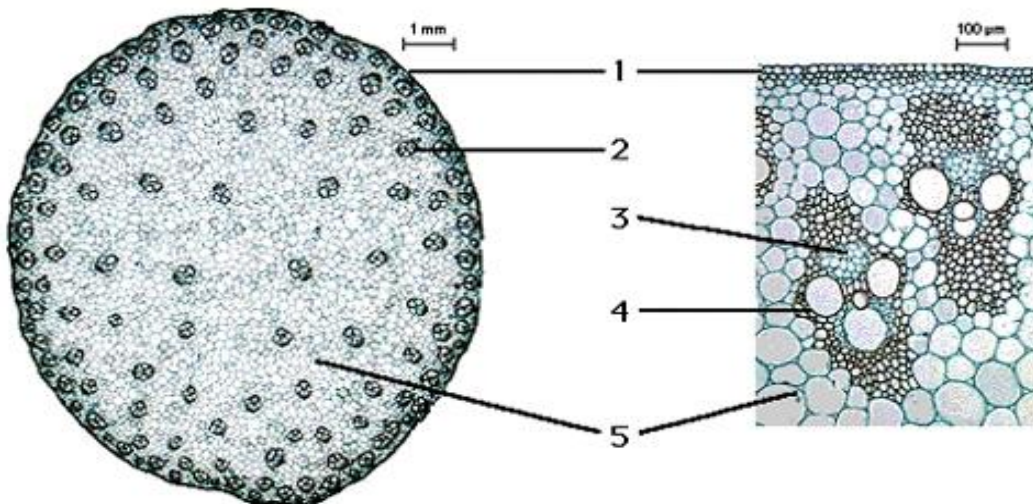
## Concept 12: Monocot Stems and Roots

The arrangement of tissues in monocot stems and roots is somewhat different from the arrangement of tissues in dicots.

Label the tissues that are indicated by numbers, and answer the questions by typing in the input boxes.

Most monocots undergo only primary growth.

**Cross Section of a Monocot Stem**



1.

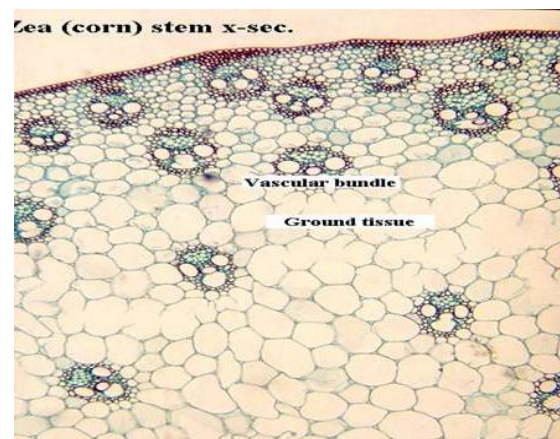
4.

2.

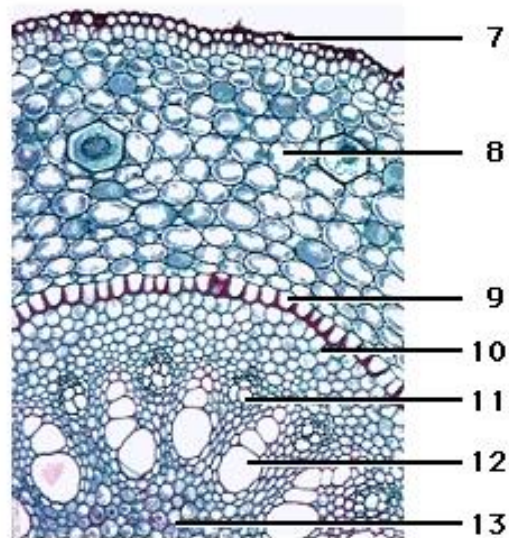
5.

3.

6. How is the arrangement of vascular tissue different in monocot and dicot stems?



### Cross Section of a Monocot Root



7.

11.

8.

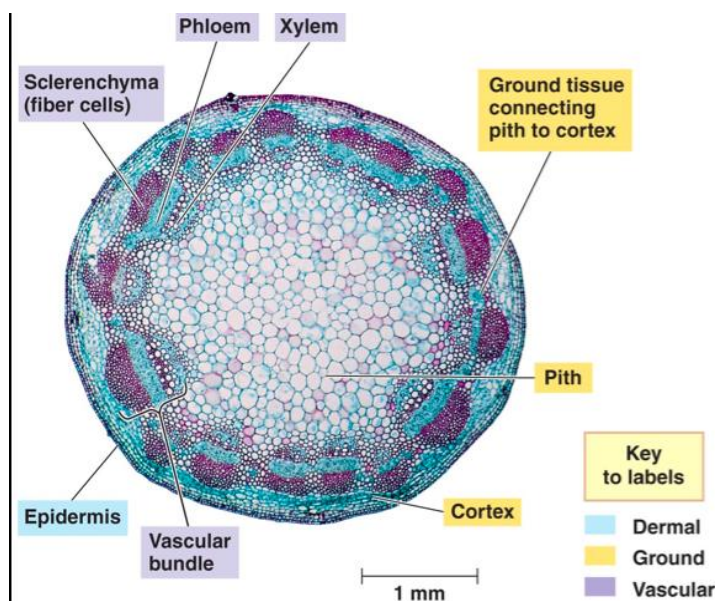
12.

9.

13.

10.

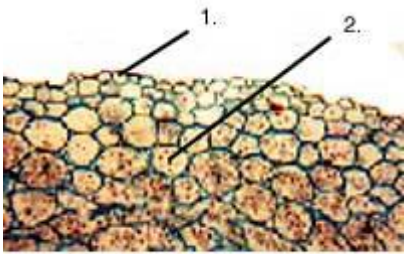
14. How is the arrangement of vascular tissues in a monocot root different from a dicot root?



# Latihan membedakan anatomi tumbuhan

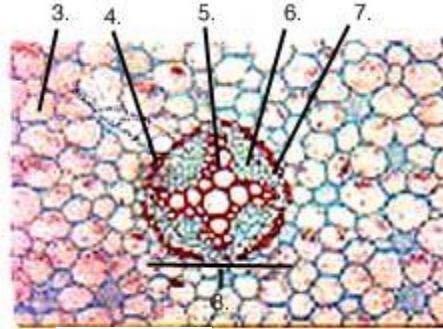
Berikan keterangan untuk setiap nomor untuk gambar di bawah ini.

**Latihan 1. Penampang melintang anatomi** ..... Ciri khas apa sehingga Anda dapat mengidentifikasi dari penampang melintang ini .....



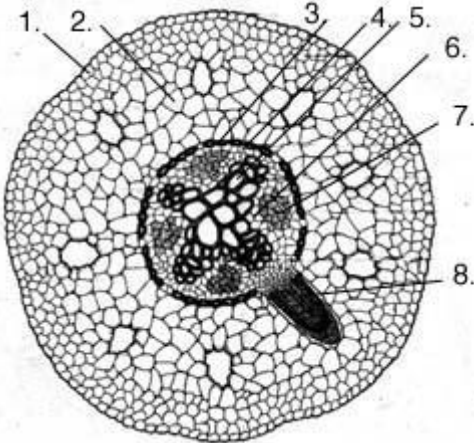
(Outer region)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.



(Inner region)

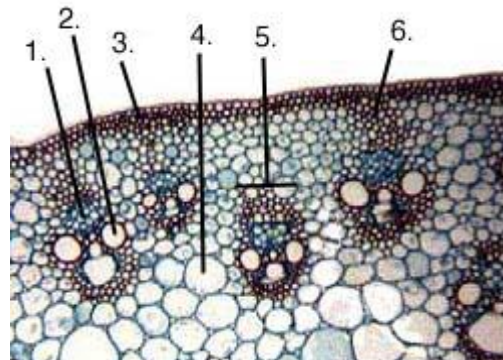
**Latihan 2. penampang melintang akar** .....



1. Nama dari jaringan ini adalah .....
2. Nama dari jaringan ini adalah .....
3. Nama dari lapisan sel ini adalah .....
4. Nama dari lapisan sel ini adalah .....
5. Fungsi jaringan ini adalah .....
6. Nama dari jaringan dengan keterangan no 5 adalah .....
- 7 Fungsi jaringan ini adalah .....
8. Nama dari jaringan dengan keterangan no 7 adalah .....
- 9 Nama untuk struktur untuk keterangan no 8 adalah .....

**Latihan 3. Penampang melintang** .....

1. Name the tissue shown by line one.  
.....  
What is the function of the tissue shown by line  
.....
2. Name the tissue shown by line three.  
.....
3. Name the tissue shown by line four.  
.....
4. Name the structure shown by bracket five.  
.....
5. Name the cell type shown by line six. ....
6. Is this stem woody or herbaceous? .....
7. Is this stem taken from a monocot or a dicot? .....

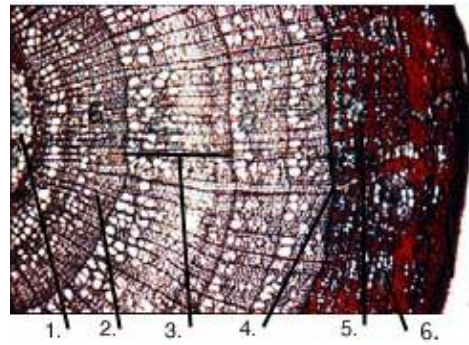


one?



**Latihan 4. Penampang melintang .....**

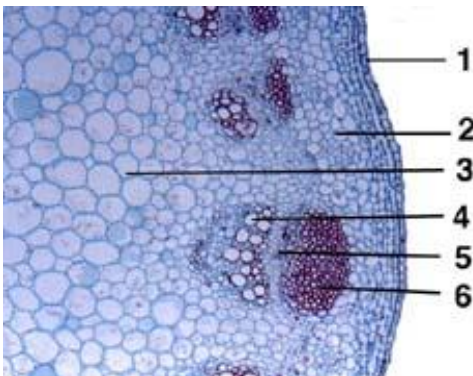
1. Name the tissue shown by line one.
2. Name the tissue shown by line two.
3. Name one function of the tissue shown by line two.
4. name is given to the region of the stem shown by bracket three.
5. Name the tissue shown by line four.
6. Name the tissue shown by line five.
7. Name the tissue shown by line six.
8. Is the stem shown woody or herbaceous?
9. Is the stem a monocot or a dicot?
10. Approximately, how old is the stem? 1-2 years, 4-6 years, 10-15 years



**Answer**

- |    |     |
|----|-----|
| 1. | 6.  |
| 2. | 7.  |
| 3. | 8.  |
| 4. | 9.  |
| 5. | 10. |

**Latihan 5. Penampang melintang .....**

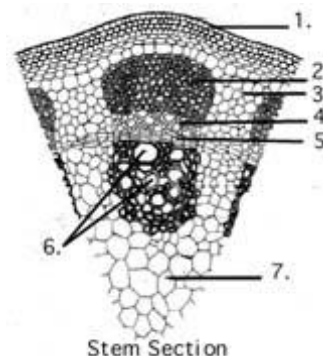


1. Name the tissue shown by line one.
2. the tissue shown by line 4.
3. the tissue shown by line three.
4. is the function of the cells shown by line four.
5. How are these cells modified to fit their function?
6. Name the type of cell shown by line five.
7. is the function of the tissue shown by line five.
8. Name the tissue shown by line two.
9. Which of the tissues shown are part of vascular bundles?

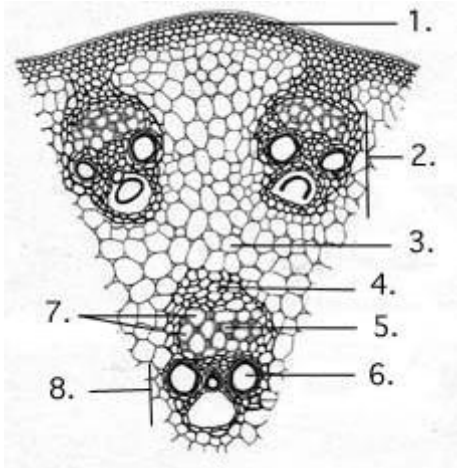
**Answer**

- |    |    |
|----|----|
| 1. | 6. |
| 2. | 7. |
| 3. | 8. |
| 4. | 9. |
| 5. |    |

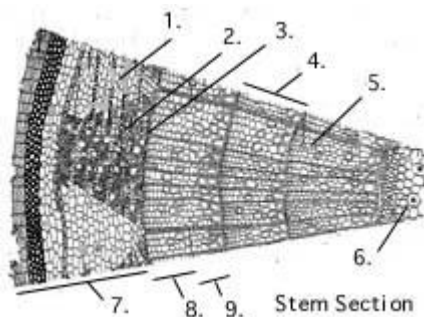
1. Name the tissue identified by line one.
2. Name the tissue identified by line two.
3. What is the function of the tissue shown by line two?
4. What is the tissue identified by line three?
5. What is the tissue identified by line four?
6. What is the function of the tissue identified by line four?
7. What is the tissue identified by line five?



8. What is the tissue identified by line six?
9. What is the function of the tissue identified by line six?
10. What is the tissue shown by line seven?
11. Is this a dicot or monocot stem?
12. Is this stem woody or herbaceous



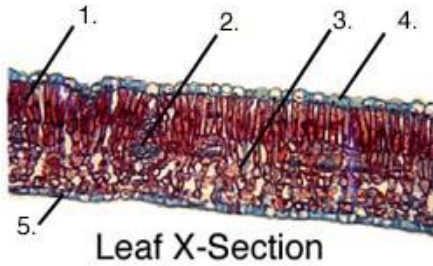
13. Name the tissue shown by line one.
14. Name the structure shown by line two. Include all of the tissues within the bracket.
15. Name the tissue shown by line three.
16. Name the type of cells located at the end of line four.
17. What is the function of cells of this type?
18. the type of cell shown by line five.
19. Name the type of cell shown by line six.
20. Name the tissue composed of cells shown by line seven.
21. Name the tissue composed of cells shown by line eight.
22. What is the function of the tissue shown by line seven?
23. What is the function of the tissue shown by line eight?



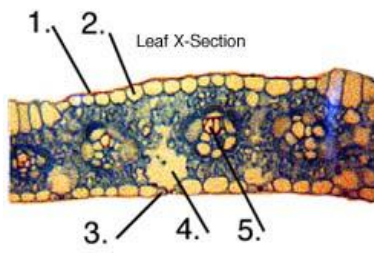
24. Name the tissue shown by line one.
25. Name the tissue shown by line two.
26. Name the tissue shown by line three.



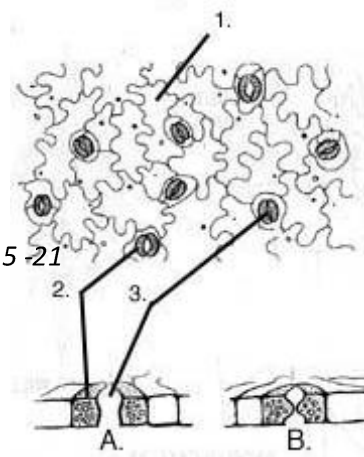
- 27. What is the function of the tissue shown by line three.
- 28. What name is given to the section of stem shown by bracket four.
- 29. Name the tissue shown by line five.
- 30. Name the tissue shown by line six.
- 31. What name is given to the section of stem shown by bracket seven.
- 32. What name is given to the section of stem shown by bracket eight.
- 33. Bracket nine?
- 34. How old is the stem?



**Leaf X-Section**  
*Gambar untuk soal no 7 - 14*



**Leaf X-Section**  
*Gambar untuk soal no 15 -21*



Gambar

1. Name the tissue layer shown by line one.

\_\_\_\_\_

2. Name the structure shown by line two.

\_\_\_\_\_

3. List at least two functions of the structure shown by line two.

4. Name the tissue layer shown by line three.

5. Name the tissue layer shown by line five.

6. Is this a monocot or dicot leaf?

7. Name the layer of material shown by line one.

8. Name the cell layer shown by line two.

9. Name the cell shown by line three.

10. Name the chamber shown by line four.

11. Name the tissue shown by line five.

12. What is the function of the tissue shown by line five?

13. Is this a monocot or dicot leaf?

14. How do you tell if this is a dicot or monocot leaf?

15. What is the name of the cell type shown by line one?

16. What is the name of the cell type shown by line two?

17. What is the name of the structure shown by line three?

18. Which of the cells shown contain numerous chloroplasts.

19. What is the function of the structure shown by line three?

20. Is the open condition shown at A. more likely to occur during the day or during the night?

21. What substance enters the cell to cause the change from condition A to condition B?

\_\_\_\_\_

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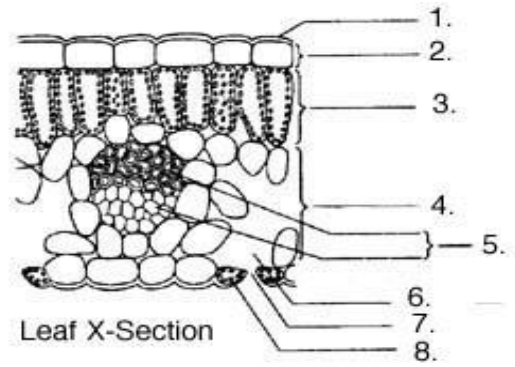
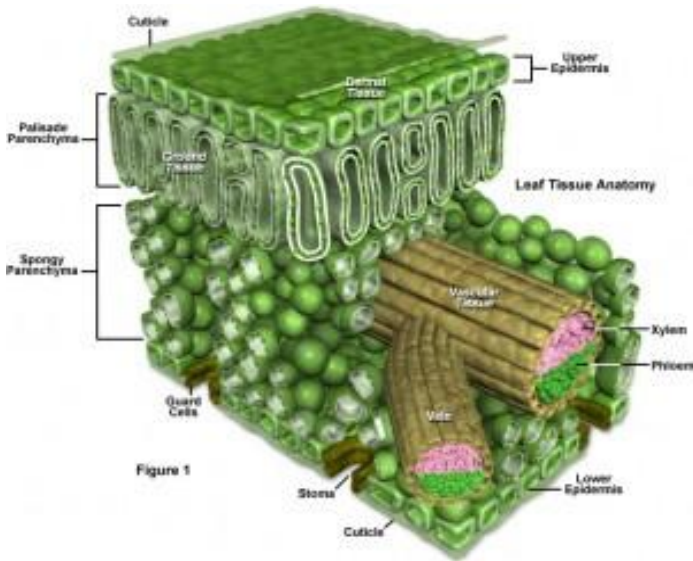
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Number your answer sheet from one to eight. Then identify the structures, cells, and tissues indicated by numbered lines.



the

**Tabel 1. Perbandingan akar monokotil dan dikotil**

	<b>Dicot Root</b> <i>Ex: Beans</i>	<b>Monocot Root</b> <i>Ex : Canna</i>
1. Vascular bundles		
2. Pith		
3. Cambium		
4. Pericycle		

**Tabel 2. Perbandingan antara anatomi akar dan batang**

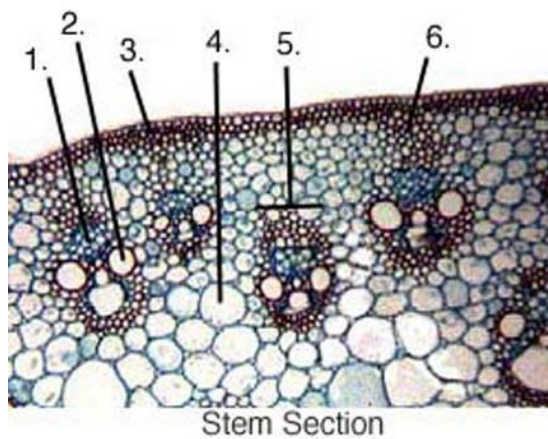
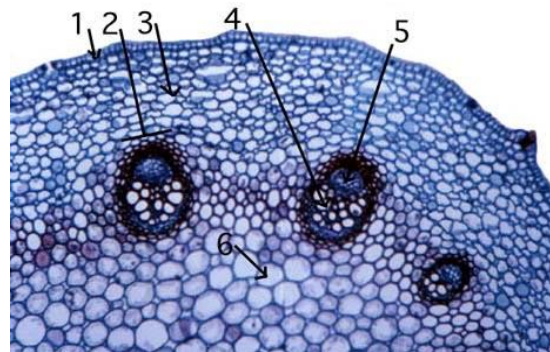
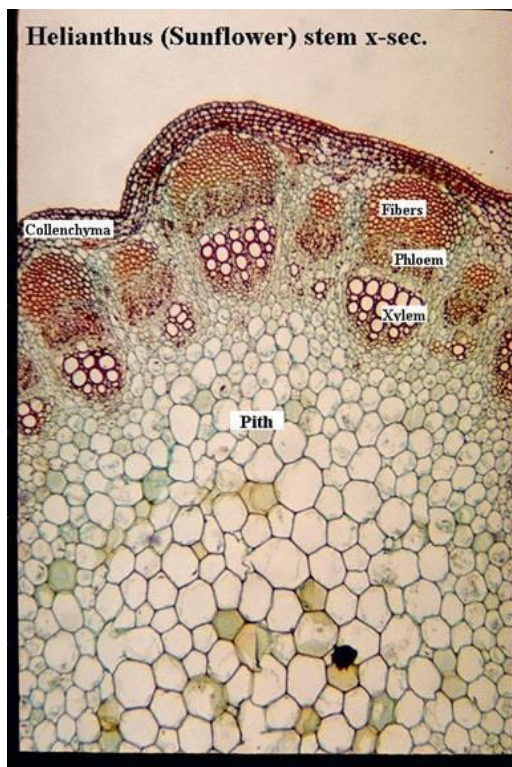
	<b>Stem</b>	<b>Root</b>
1. Cuticle		
2. Trichomes		
3. Stomata		
4. Hypodermis		
5. Cortex		
6. Endodermis		
7. Pericycle		
8. Vascular bundles		
9. Pith		
10. Branching		

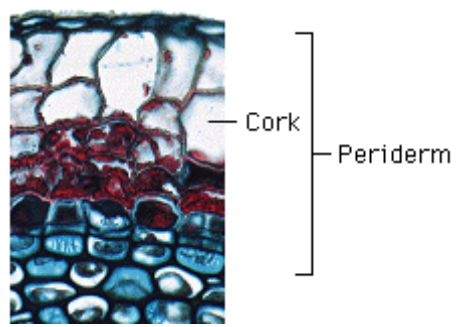
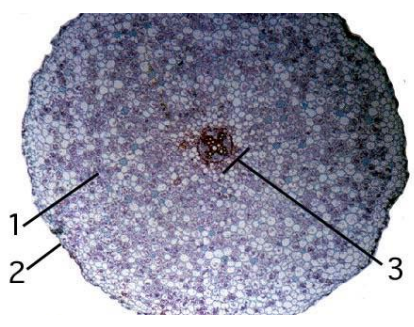
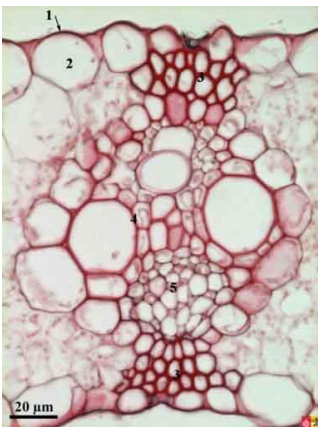
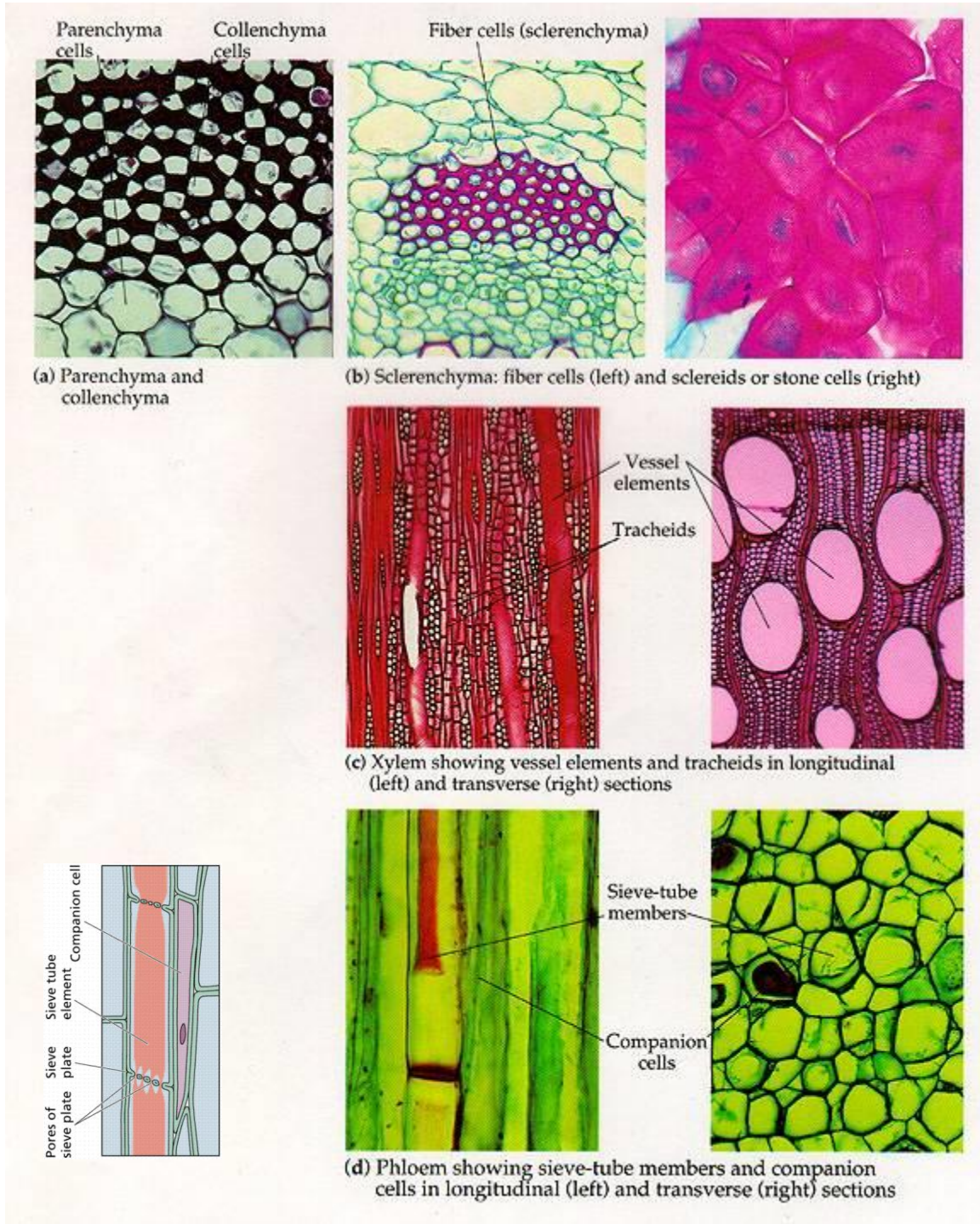




**Tabel 3. Perbandingan daun monokotil dan dikotil**

	<b>Dicot Root</b> <i>Ex: Mango</i>	<b>Monocot Root</b> <i>Ex : Maize</i>
1. Orientation of leaf		
2. Stomata		
3. Cuticle		
4. Motor cells		
5. Mesophyll		
6. Vascular bundles		





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My Note

