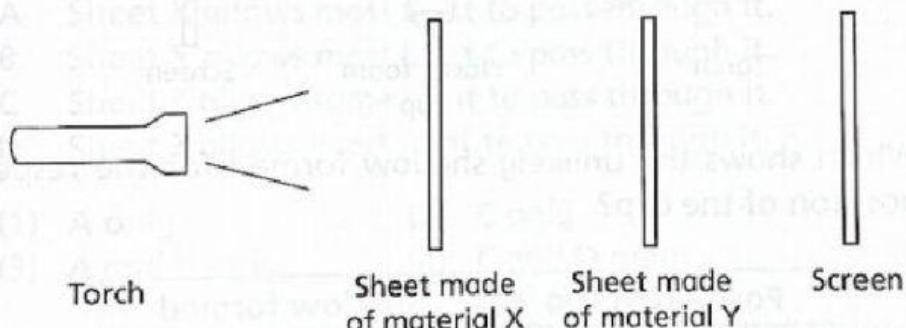


Study the following and answer questions 27 and 28.

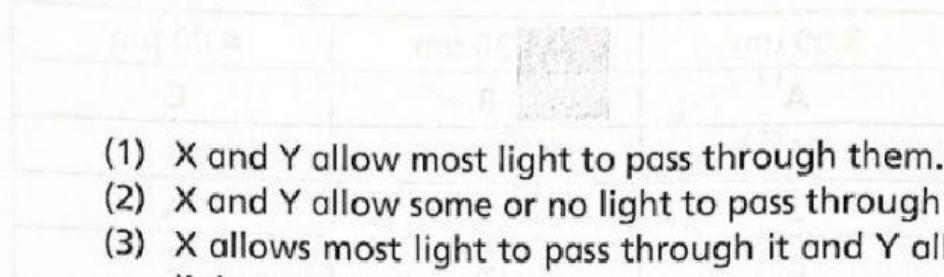
Two sheets made of materials X and Y were placed between a torch and a screen as shown below. The sheets were of similar size and thickness.



27. Which statement about materials X and Y is correct if no shadow was formed on the screen?

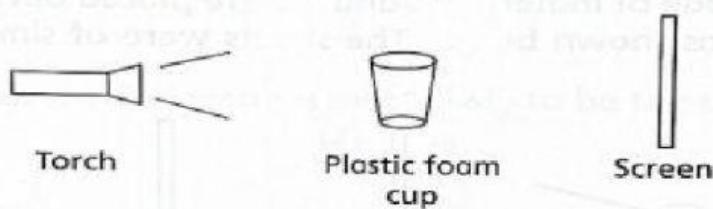
- (1) X and Y allow most light to pass through them.
- (2) X allows most light to pass through it but Y allows no light to pass through it.
- (3) X allows no light to pass through it but Y allows some light to pass through it.
- (4) X allows some light to pass through it but Y allows most light to pass through it. ( )

28. Which statement about materials X and Y is likely possible if the following shadow was formed on the screen?



- (1) X and Y allow most light to pass through them.
- (2) X and Y allow some or no light to pass through them.
- (3) X allows most light to pass through it and Y allows some light to pass through it.
- (4) X allows some light to pass through it and Y does not allow light to pass through it. ( )

29. A torch was shone on a plastic foam cup as shown below.

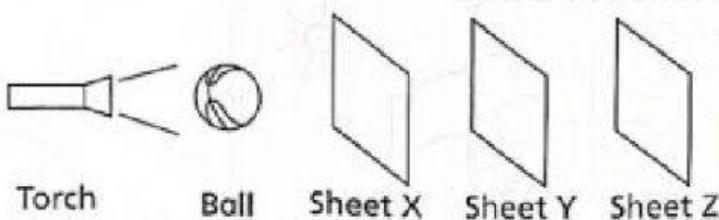


Which shows the unlikely shadow formed for the respective position of the cup?

|     | Position of cup   | Shadow formed   |
|-----|---|---|
| (1) |  |  |
| (2) |  |  |
| (3) |  |  |
| (4) |  |  |

( )

Study the following diagram and answer questions 30 to 32.



30. Which statement is correct if a dark shadow of the ball is formed on sheet Y?

- (1) Sheet Y allows light to pass through it.
- (2) Sheet Z does not allow light to pass through it.
- (3) Sheet Y does not allow light to pass through it.
- (4) Sheet X does not allow light to pass through it. ( )

31. Which of the following is/are correct if a dark shadow of the ball is formed on sheet Z?

- A Sheet X allows most light to pass through it.
- B Sheet Y allows most light to pass through it.
- C Sheet Z allows some light to pass through it.
- D Sheet Z allows most light to pass through it.

- (1) A only (2) C only
- (3) A and B only (4) C and D only ( )

2. Study the diagrams below.



Sun



Fireworks



Firefly



Fire

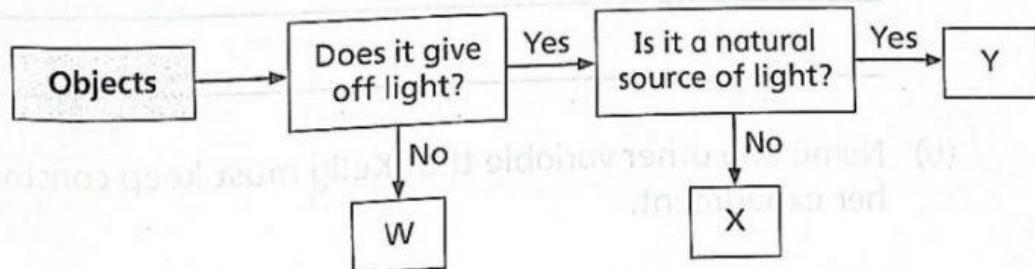
(a) What do the above things produce?

\_\_\_\_\_

(b) Classify the above objects in the following table.

| Natural sources of light | Artificial sources of light |
|--------------------------|-----------------------------|
|                          |                             |
|                          |                             |

3. Study the flow chart below.



Suggest examples for objects W, X and Y.

Object W: \_\_\_\_\_

Object X: \_\_\_\_\_

Object Y: \_\_\_\_\_