

1 Link the **start** of each sentence to its correct **end**.

start	end
The pixels ...	... refreshes pixels one after the other.
The raster scan ...	... triggers the start of a new raster scan.
The video signal ...	... are arranged in rows within each frame.
The line sync signal ...	... triggers the start of a new row in the scan.
The frame sync signal ...	... sets the brightness of the pixel being accessed.

2 Do calculations to complete the table for a monochrome video display.

pixels per frame	pixels per line	lines per frame
	833	625
131 072	512	
	540	405
76 800	320	

3 Complete the sentences. Use these words.

**bottom frame left line pulsed raster refreshed right top video**

A monitor screen uses a \_\_\_\_\_ scan to allow each pixel access to the \_\_\_\_\_ signal in turn. Pixels in a \_\_\_\_\_ are accessed from \_\_\_\_\_ to \_\_\_\_\_. Lines are scanned one after the other, from \_\_\_\_\_ to \_\_\_\_\_. The time taken to scan a whole \_\_\_\_\_ must be short enough for the image to be flicker-free. The pixels on CRT screens are \_\_\_\_\_ as the scan passes them, but those on LCD screens are \_\_\_\_\_.

4 Do calculations to complete the table for a monochrome video display.

pixels per frame	frame refresh rate	video bit rate	video bandwidth
	70 Hz		6.0 MHz
	50 Hz	3 280 000 s <sup>-1</sup>	
1 228 800	40 Hz		
543 116			16.3 MHz