

Physics
PAPER 1
Foundation Tier

Thursday 25 May 2023 – Morning

Diagram Booklet

In the boxes below, write your name, centre number and candidate number.

Surname					
Other names					
Centre Number					
Candidate Number					

INSTRUCTIONS

There may be spare copies of some diagrams in case you need them.

THIS DIAGRAM BOOKLET MUST BE RETURNED WITH THE QUESTION PAPER AT THE END OF THE EXAMINATION.

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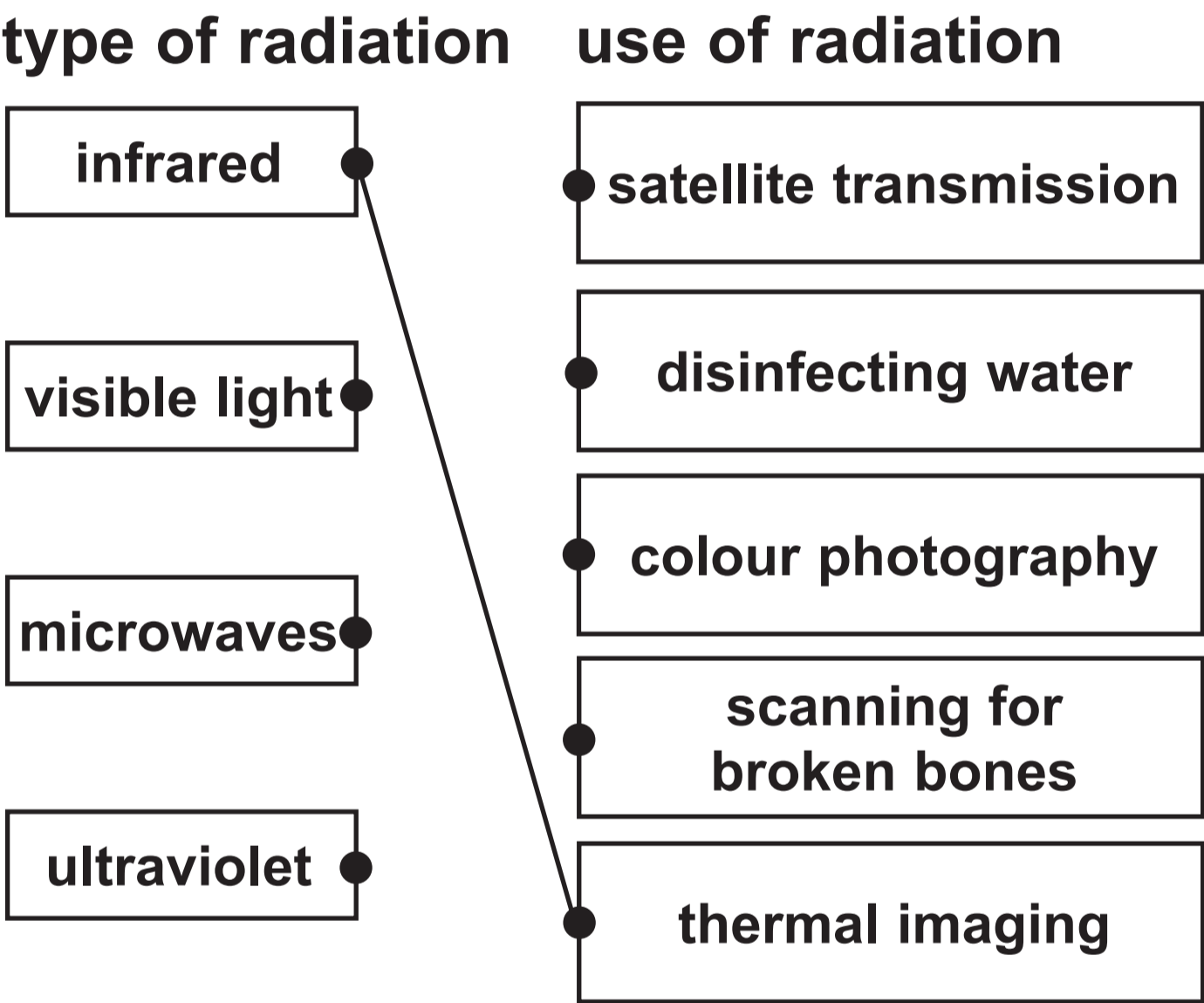
Spare copies

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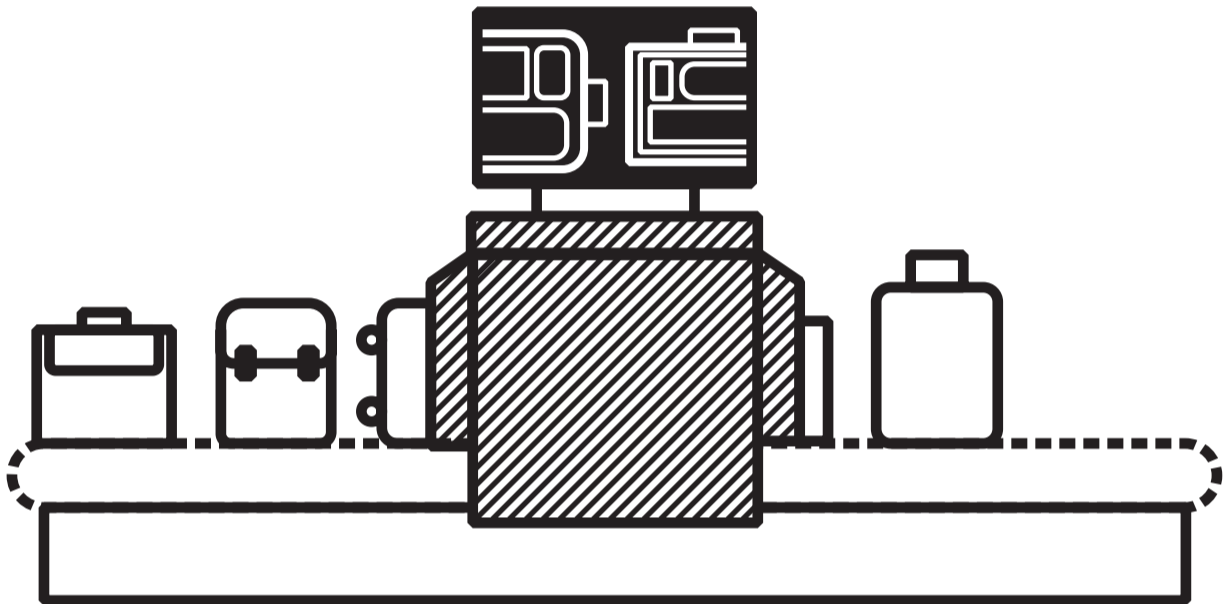
Question 1(a)

FIGURE 1



Question 1(b)

FIGURE 2



Question 2(a)

FIGURE 3

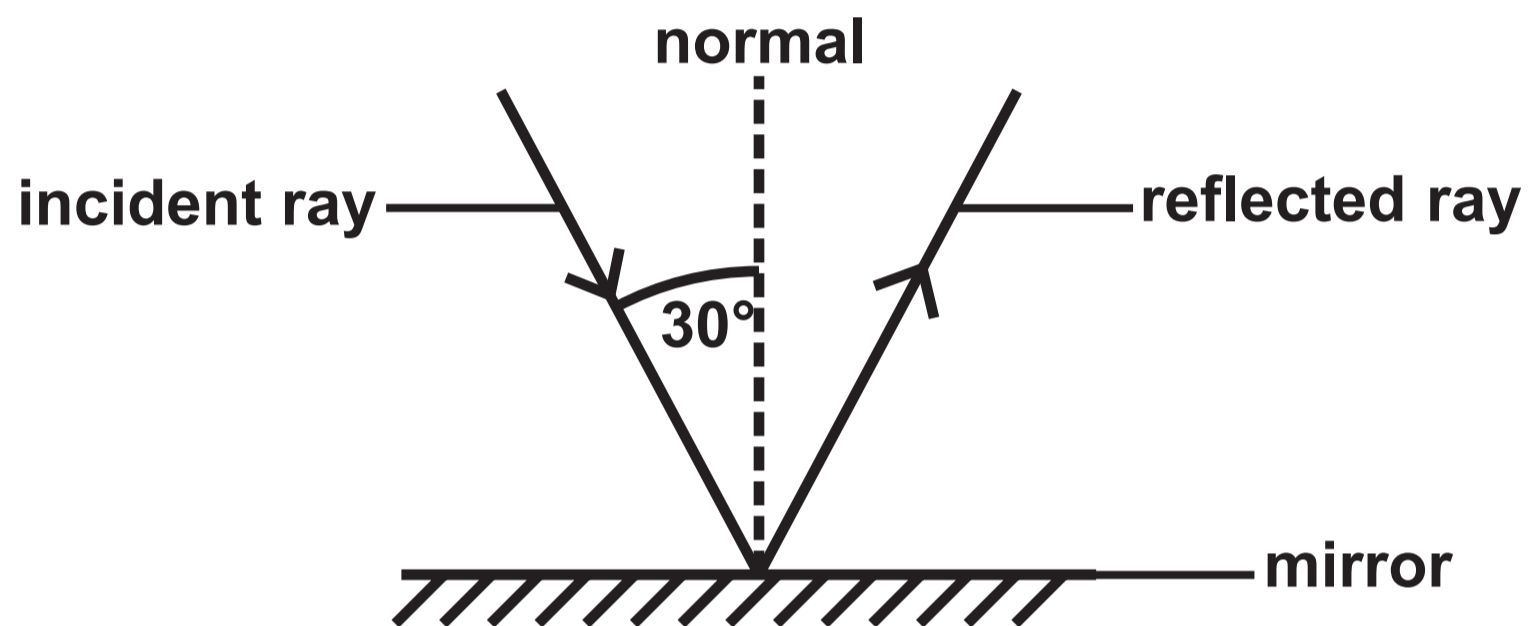


FIGURE 4

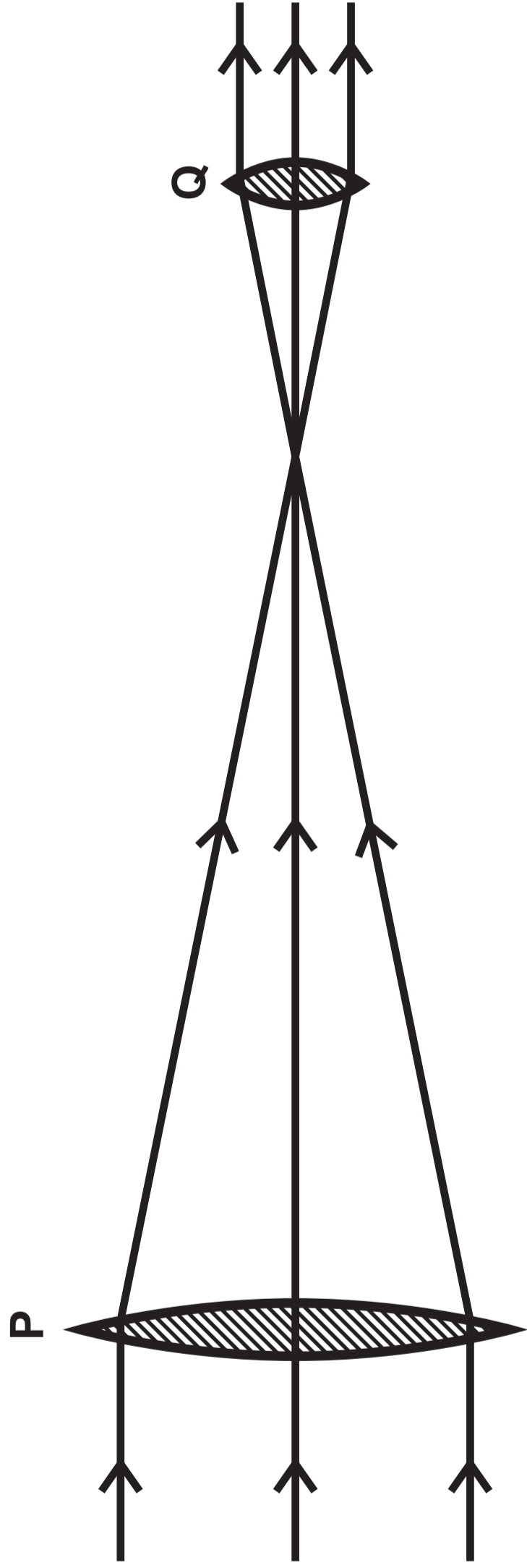


FIGURE 5

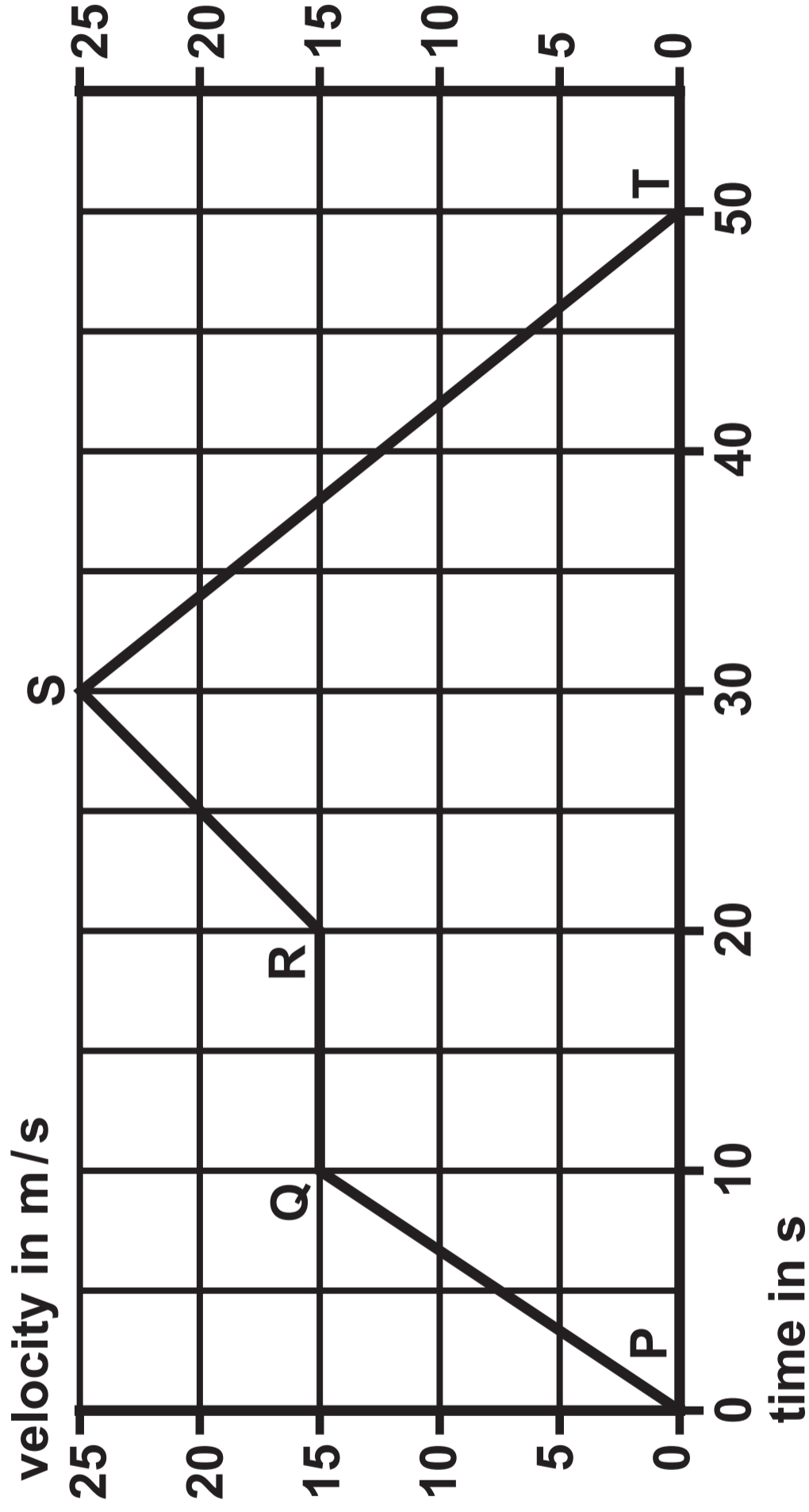
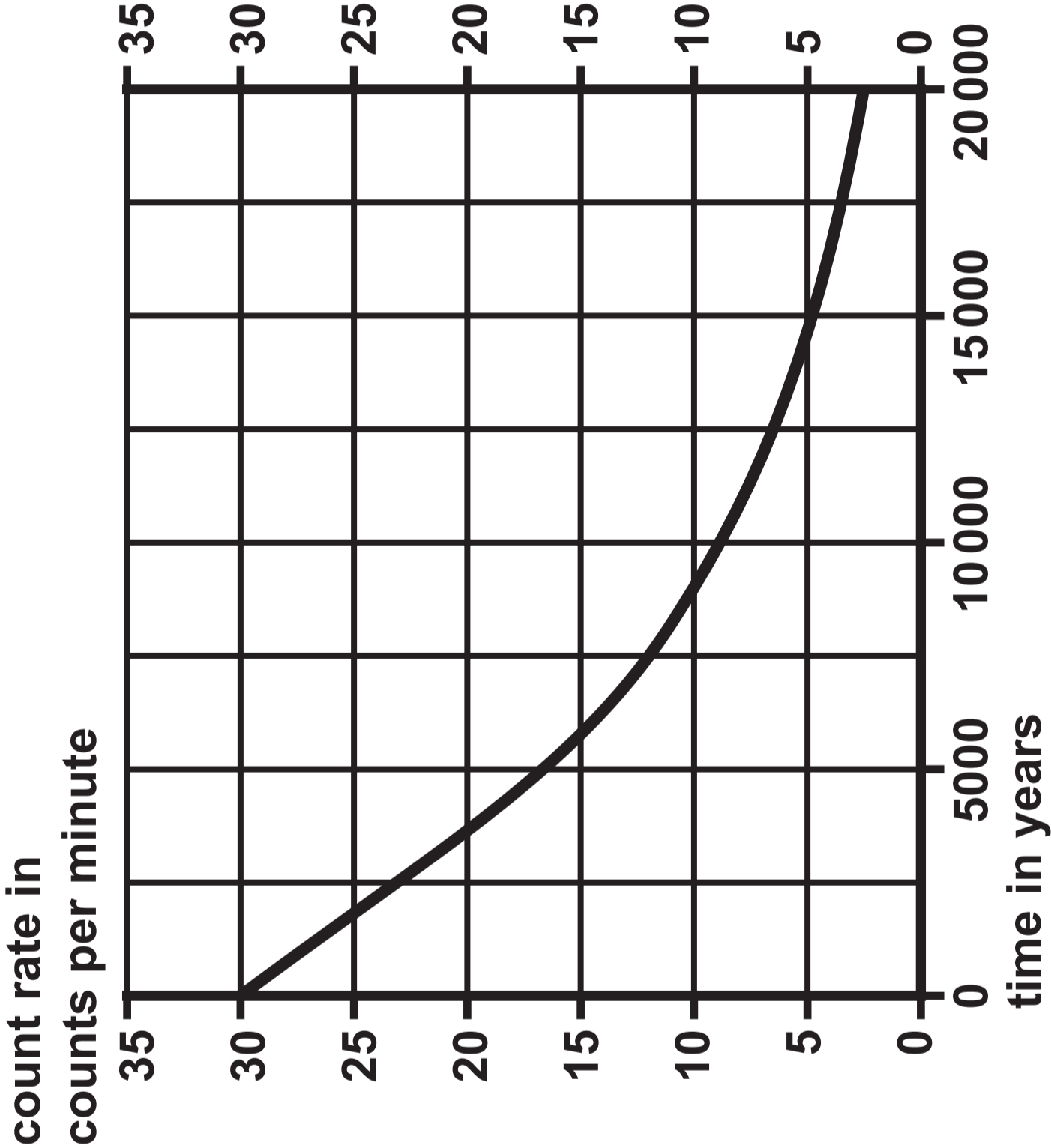
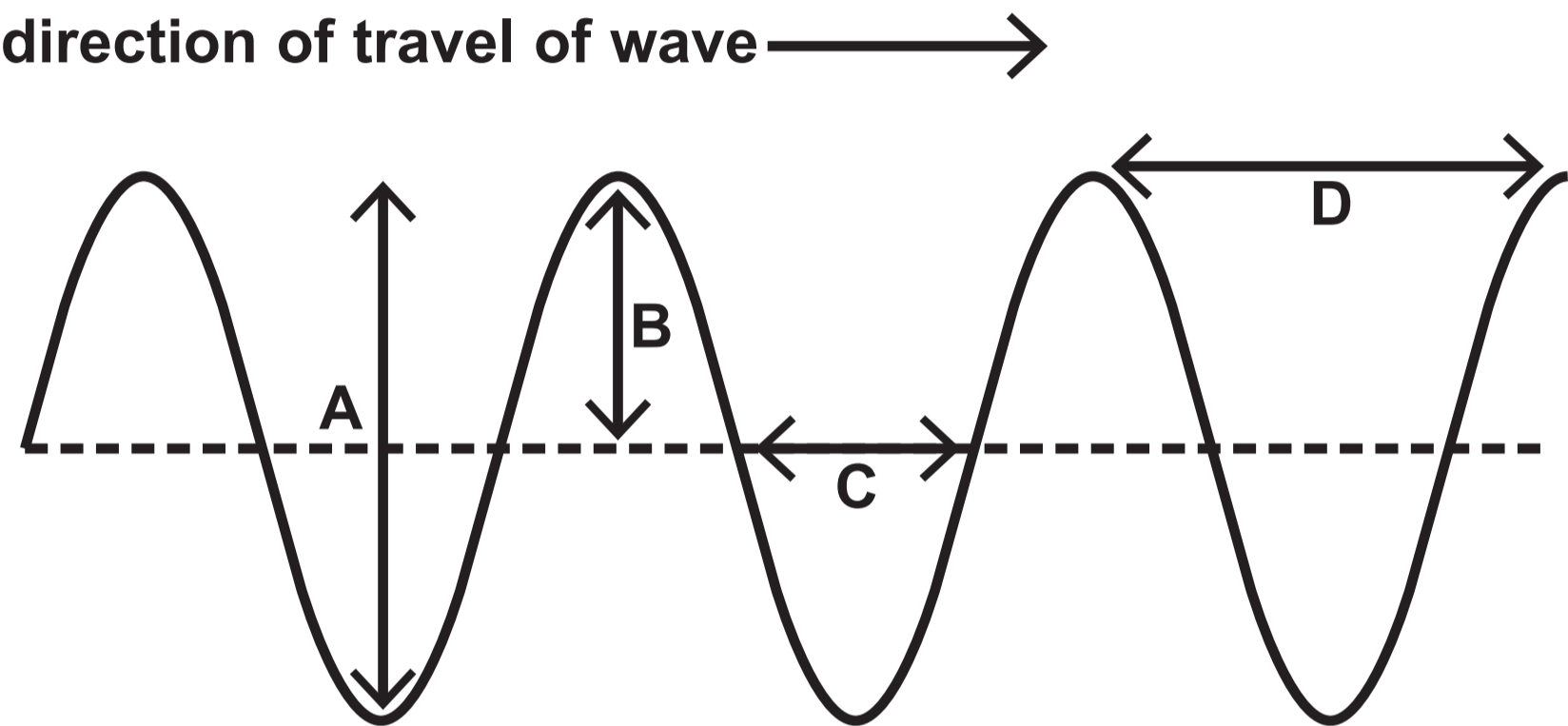


FIGURE 6



Question 5(a)

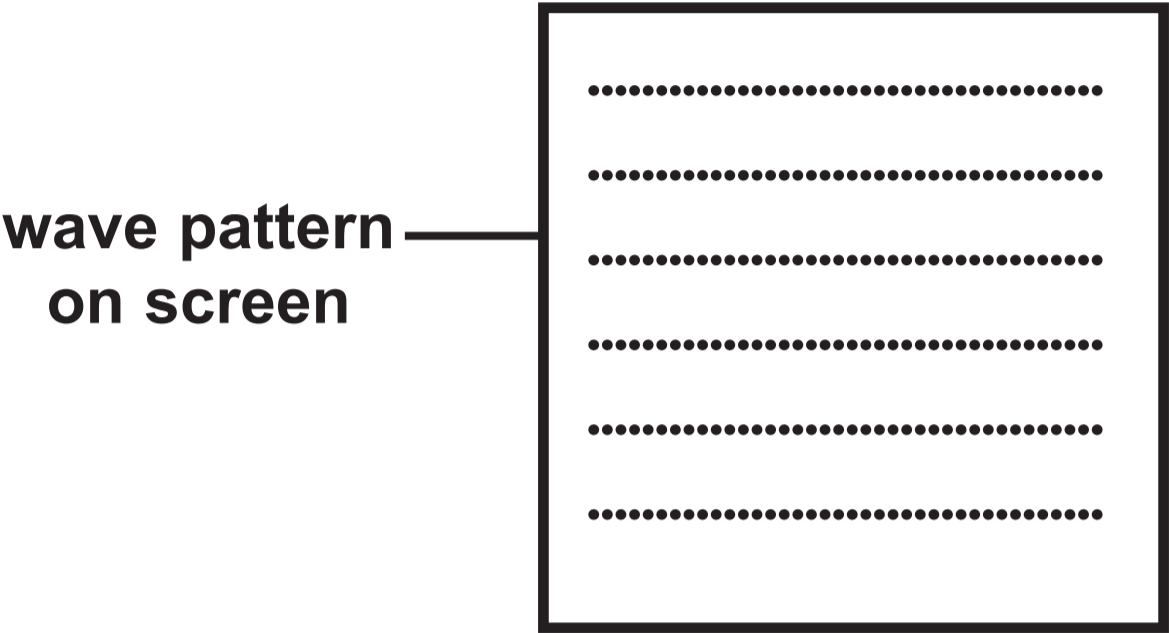
FIGURE 7



Question 5(b)

FIGURE 8

Top view of wave pattern on screen



Side view of the ripple tank

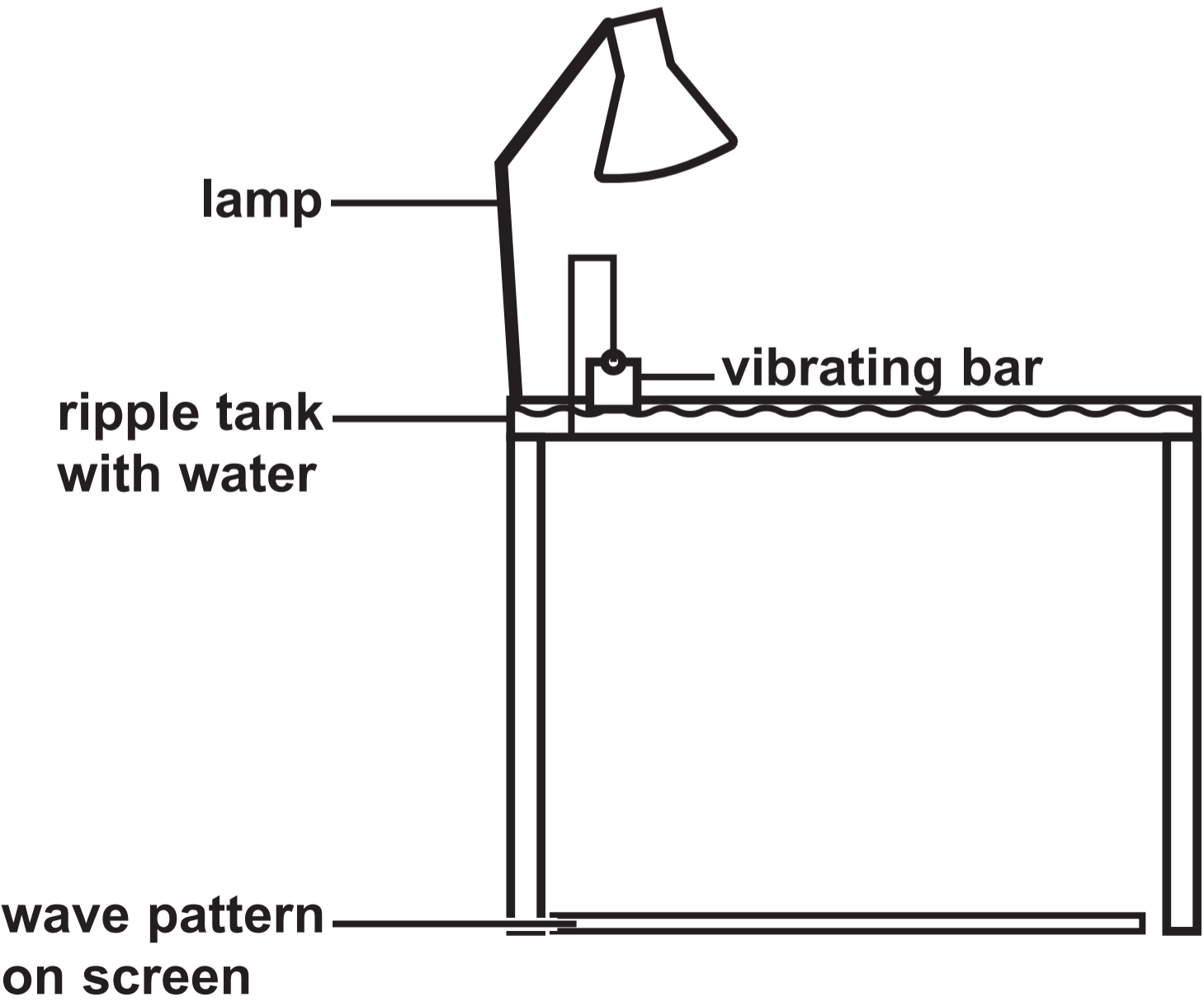
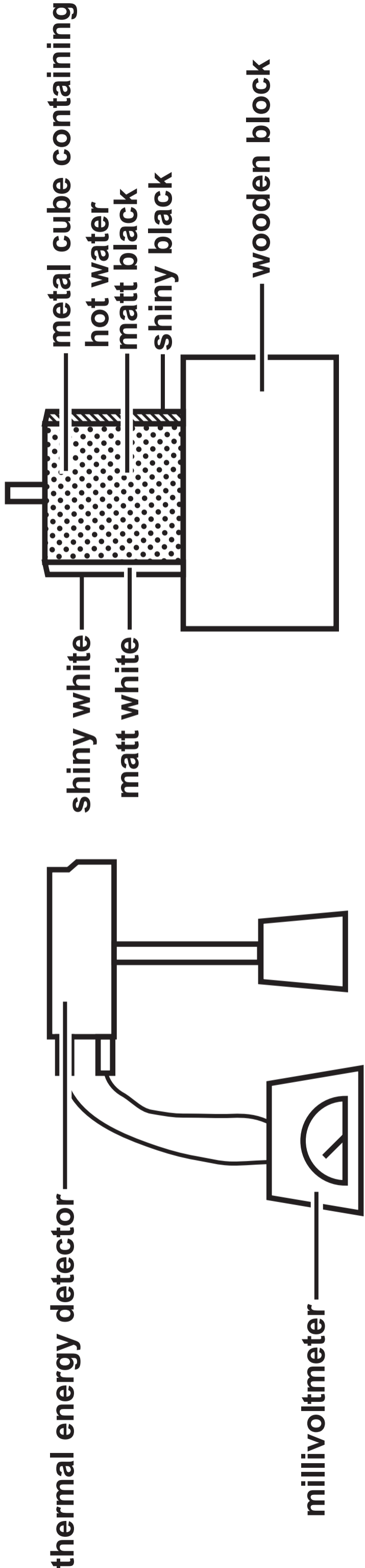


FIGURE 9



Question 6(a)(i)

FIGURE 10

type of surface	millivoltmeter reading in mV
matt white	32
shiny white	20
shiny black	
matt black	55

Question 6(b)

FIGURE 11

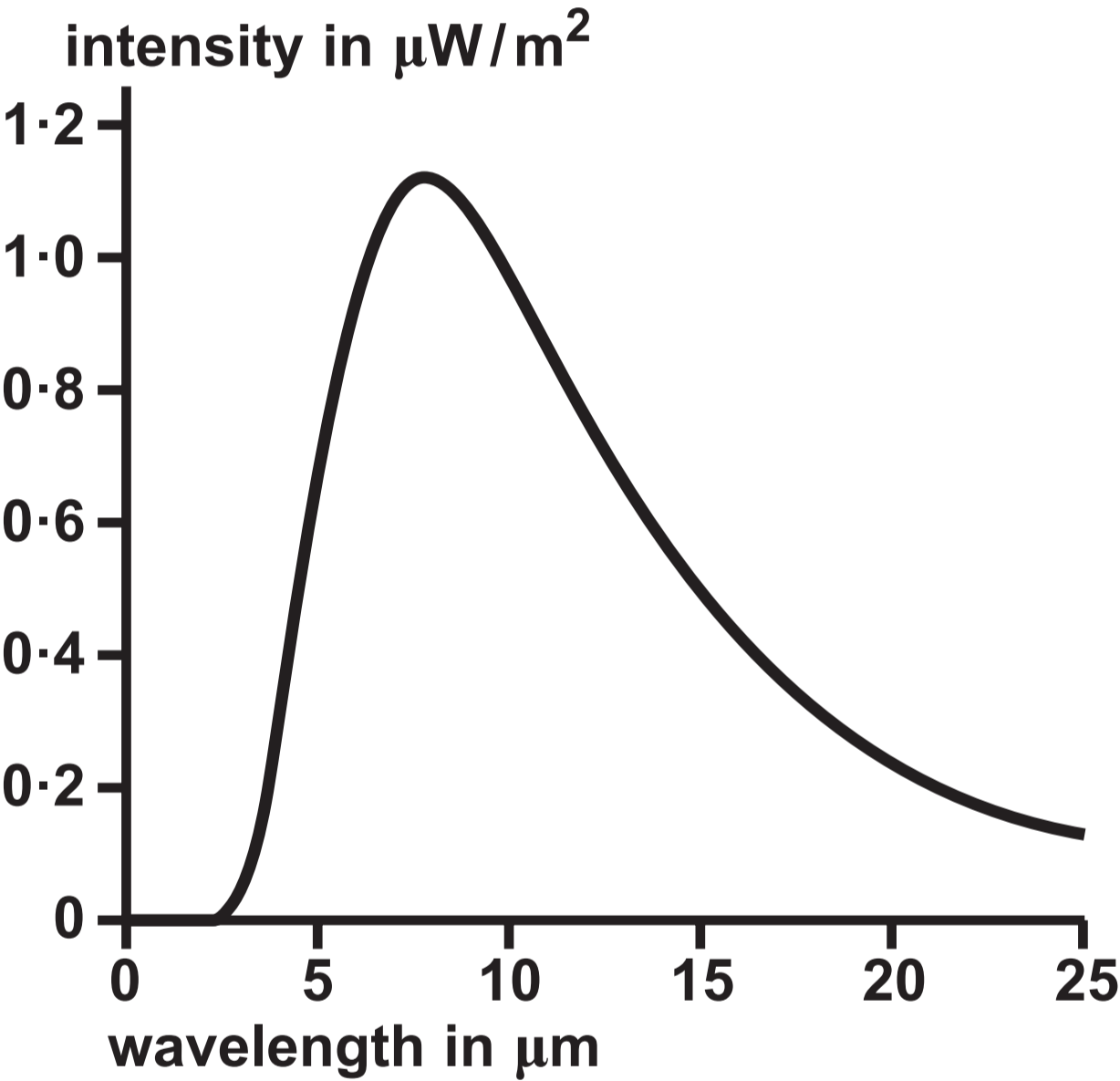


FIGURE 12

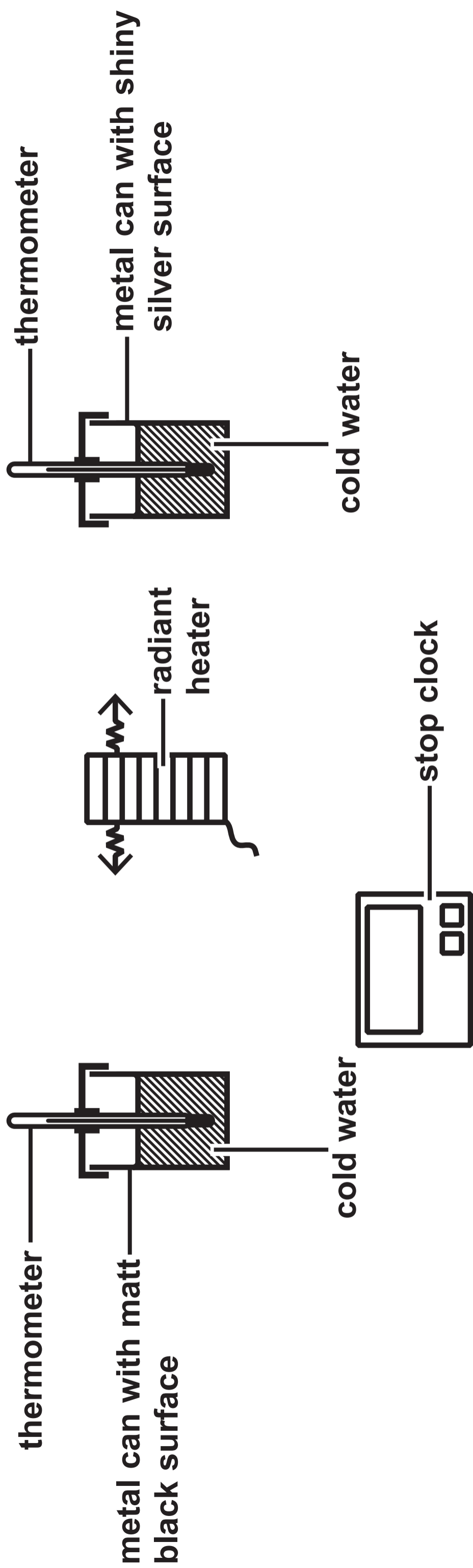
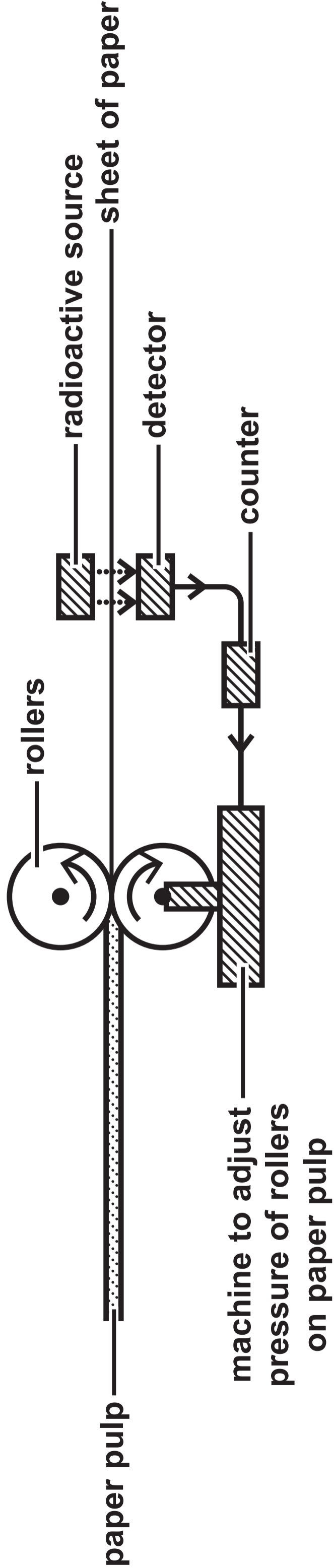


FIGURE 13



Question 8(b)

FIGURE 14

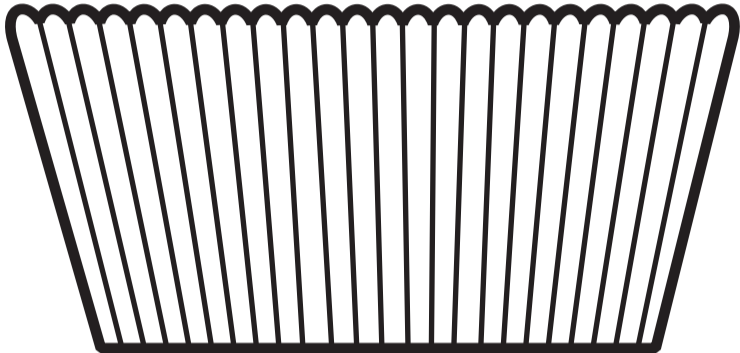
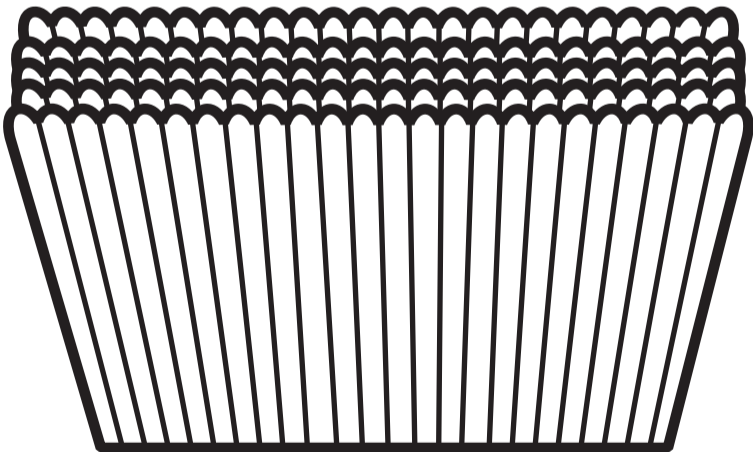
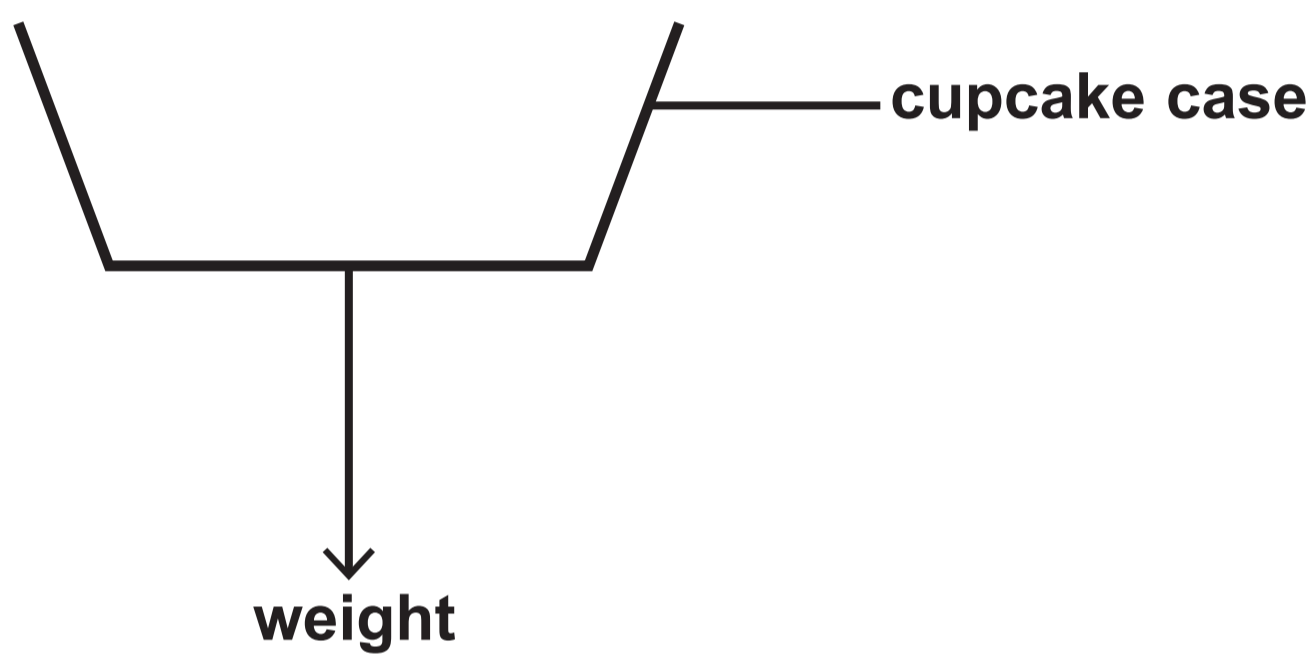


FIGURE 15



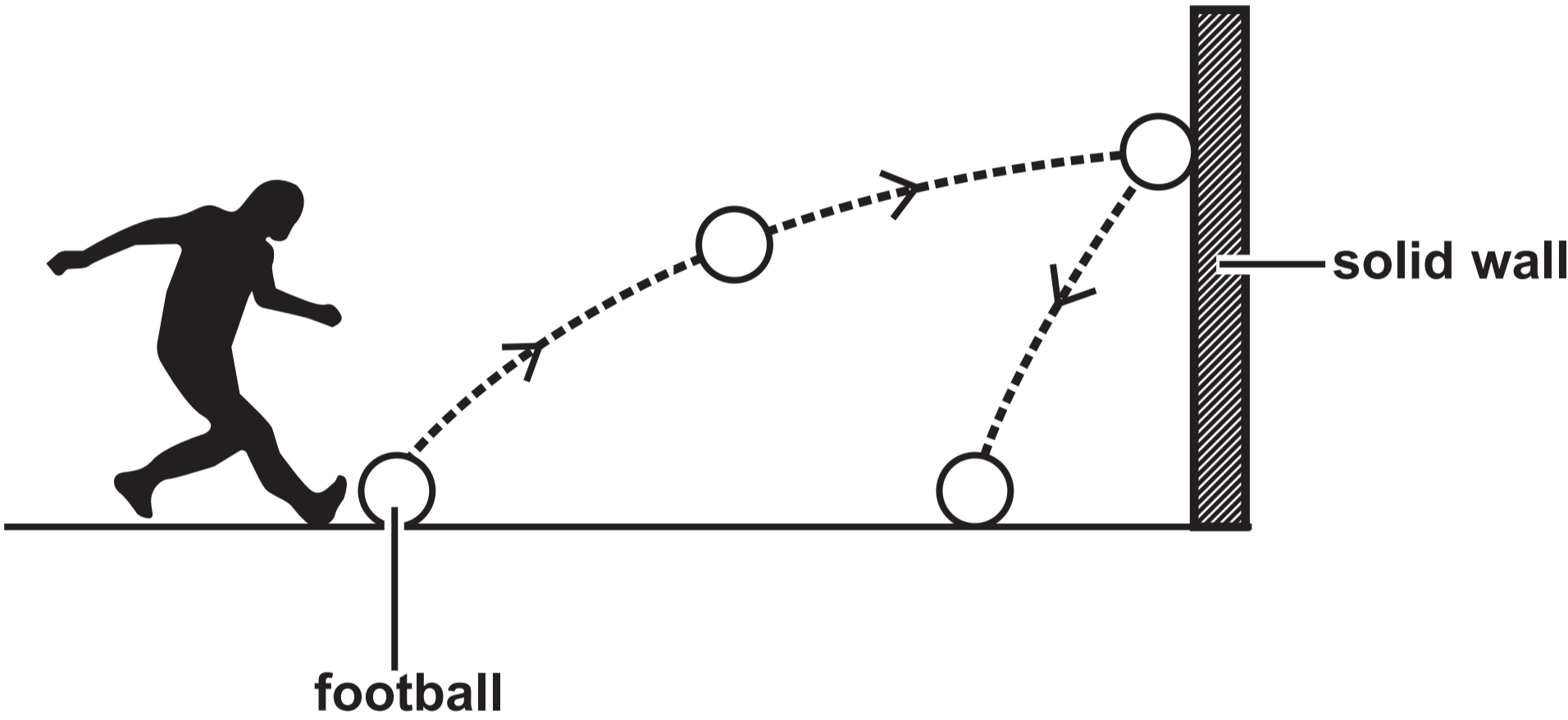
Question 8(b)(iii)

FIGURE 16



Question 9(a)

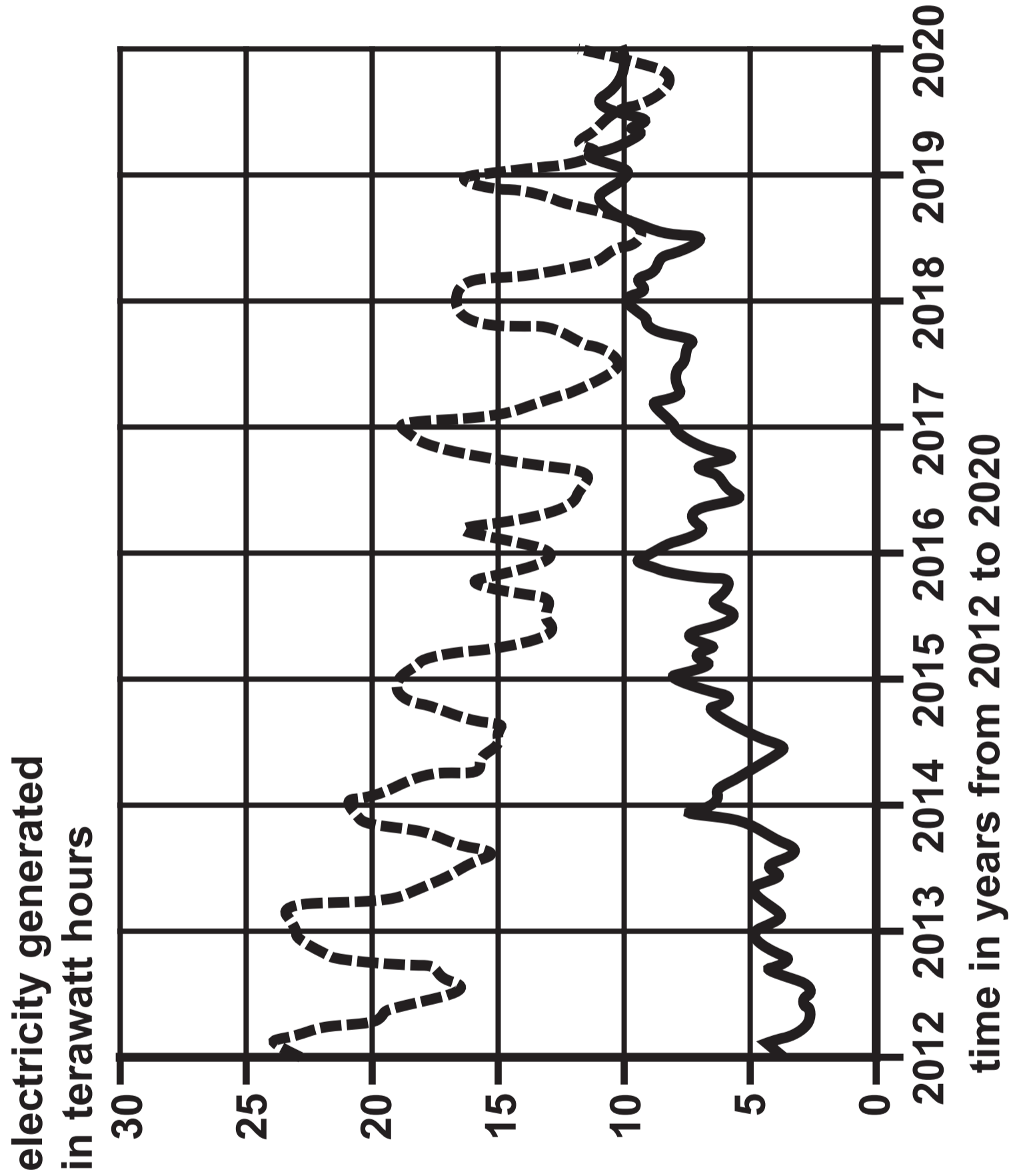
FIGURE 17



KEY

- non-renewable energy resources
- renewable energy resources

FIGURE 18



Question 10(a)

FIGURE 19



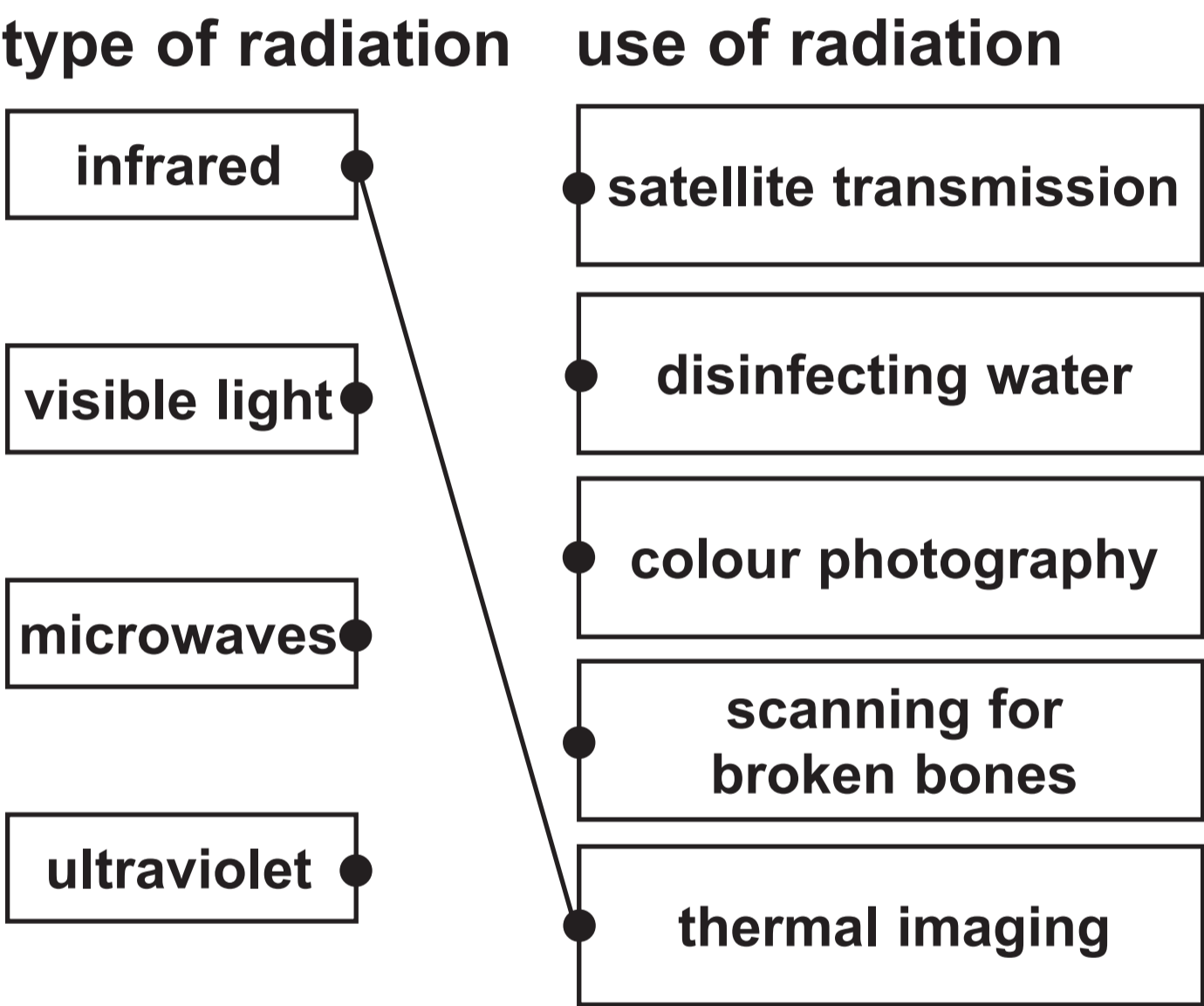
Question 10(c)

FIGURE 20

type of radiation	typical wavelength
gamma rays	$1.0 \times 10^{-12} \text{ m}$
X-rays	$3.0 \times 10^{-11} \text{ m}$
ultraviolet	200 nm
visible	600 nm
infrared	$4.0 \mu\text{m}$
microwaves	1.0 mm
radio waves	50 m

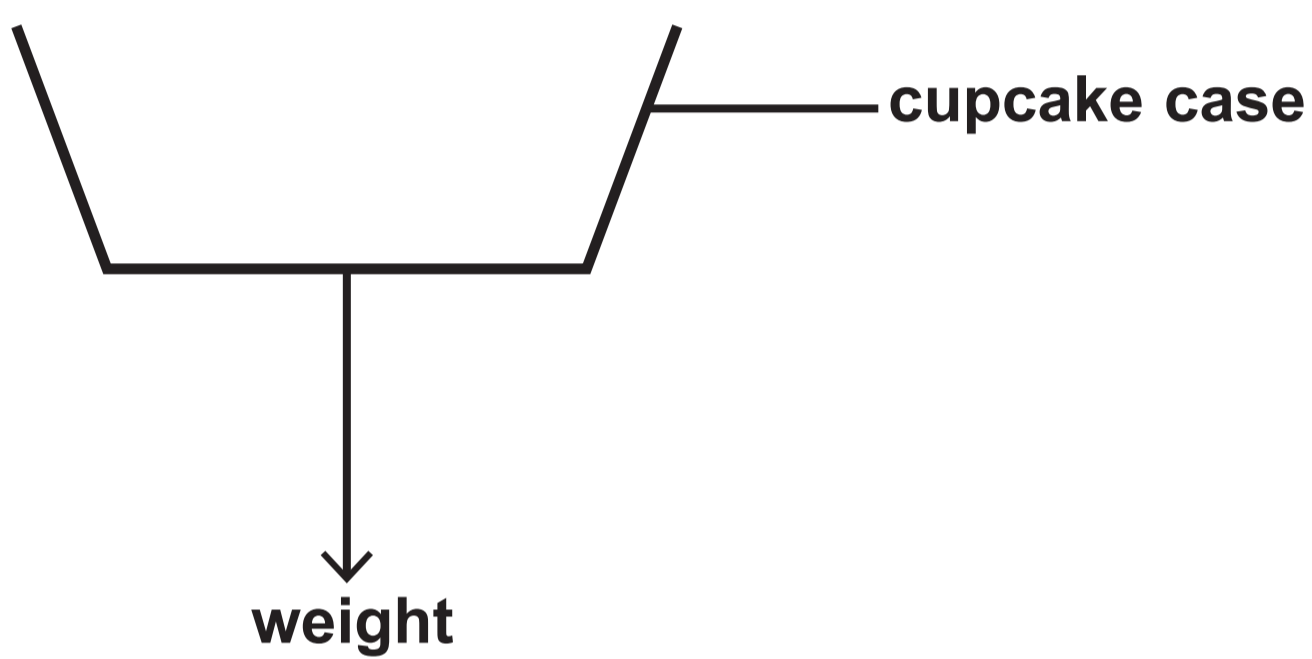
Question 1(a)

FIGURE 1



Question 8(b)(iii)

FIGURE 16



Question 1(b)

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Question 8(b)

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