

Outcome	Tally of 20 throws	Pupil Totals
H H		
H and T		
T T		

LP 141/5a

Outcome	Tally of 40 throws	Pupil Totals
H H H		
1 H and 2 T		
2 H and 1 T		
T T T		

LP 141/6a

Outcome

Class Totals

Relative frequency

H H		
H and T		
T T		
$n =$		

Outcome

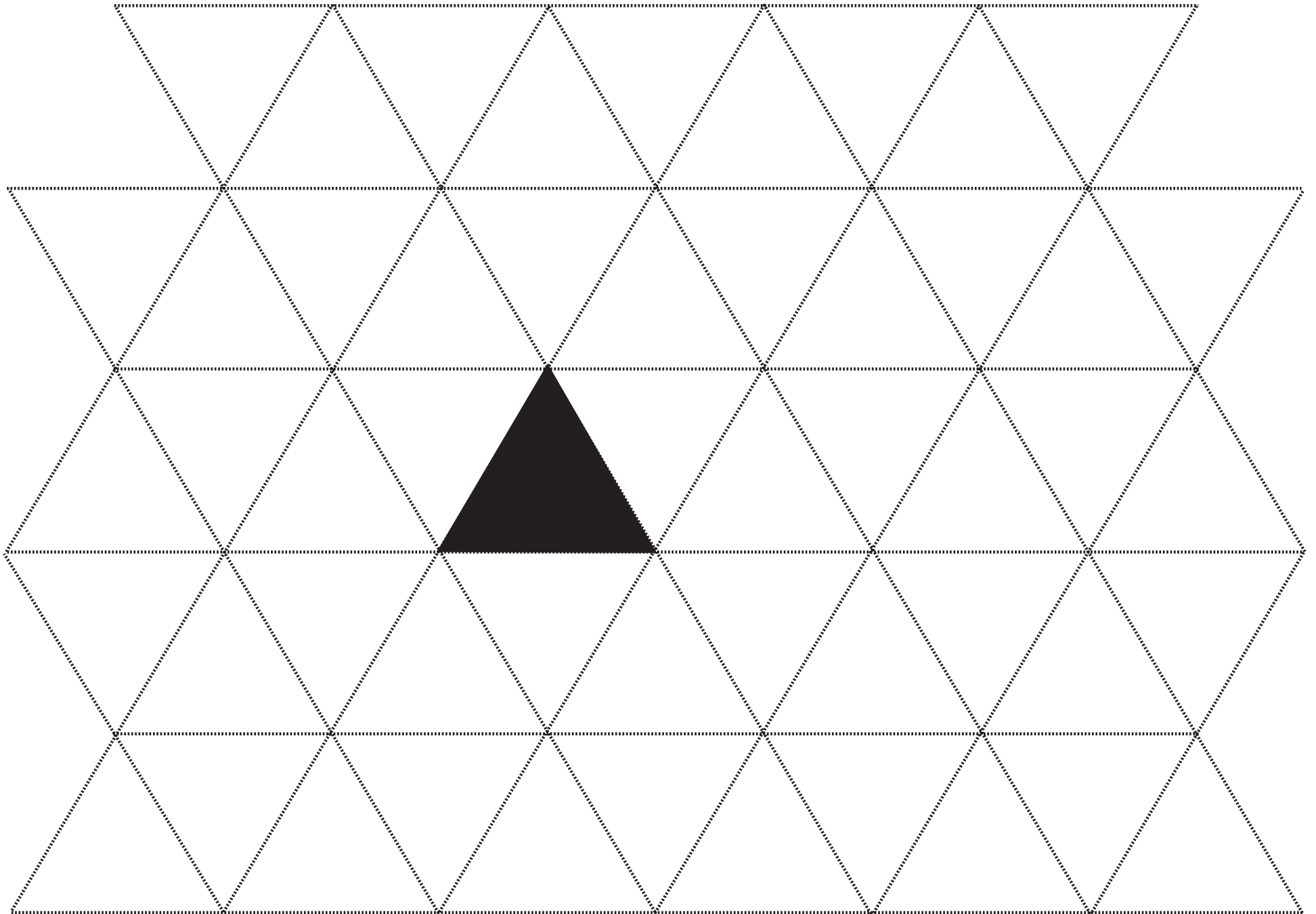
Class Totals

Relative frequency

H H H		
1 H and 2 T		
2 H and 1 T		
T T T		
	$n =$	

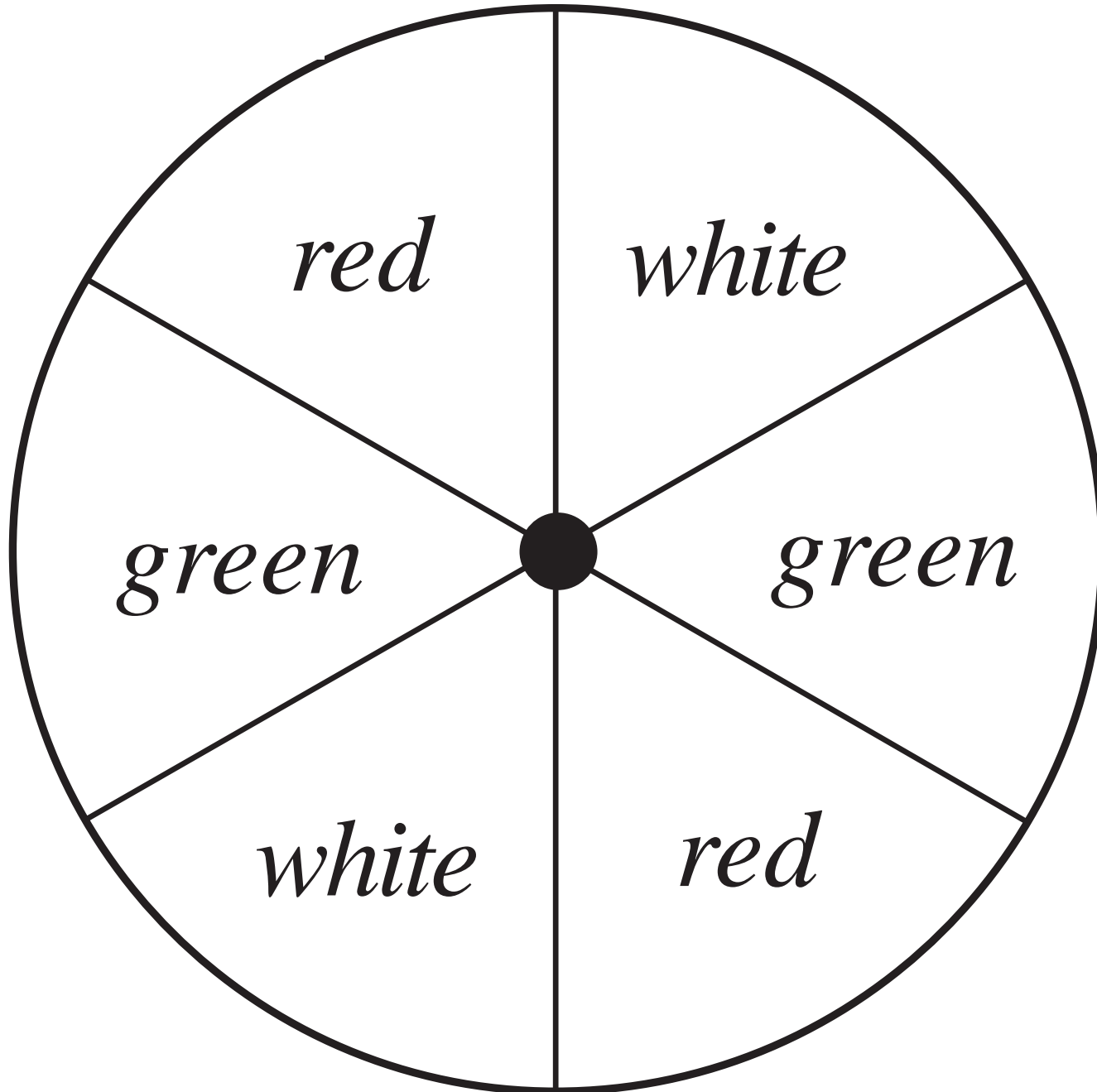
Outcome	Tally of 72 throws	Pupil Total	Relative frequency	Class Total	Relative frequency
1 and 1					
1 and 2					
1 and 3					
1 and 4					
1 and 5					
1 and 6					
2 and 2					
2 and 3					
2 and 4					
2 and 5					
2 and 6					
3 and 3					
3 and 4					
3 and 5					
3 and 6					
4 and 4					
4 and 5					
4 and 6					
5 and 5					
5 and 6					
6 and 6					
	$n =$	72		$n =$	

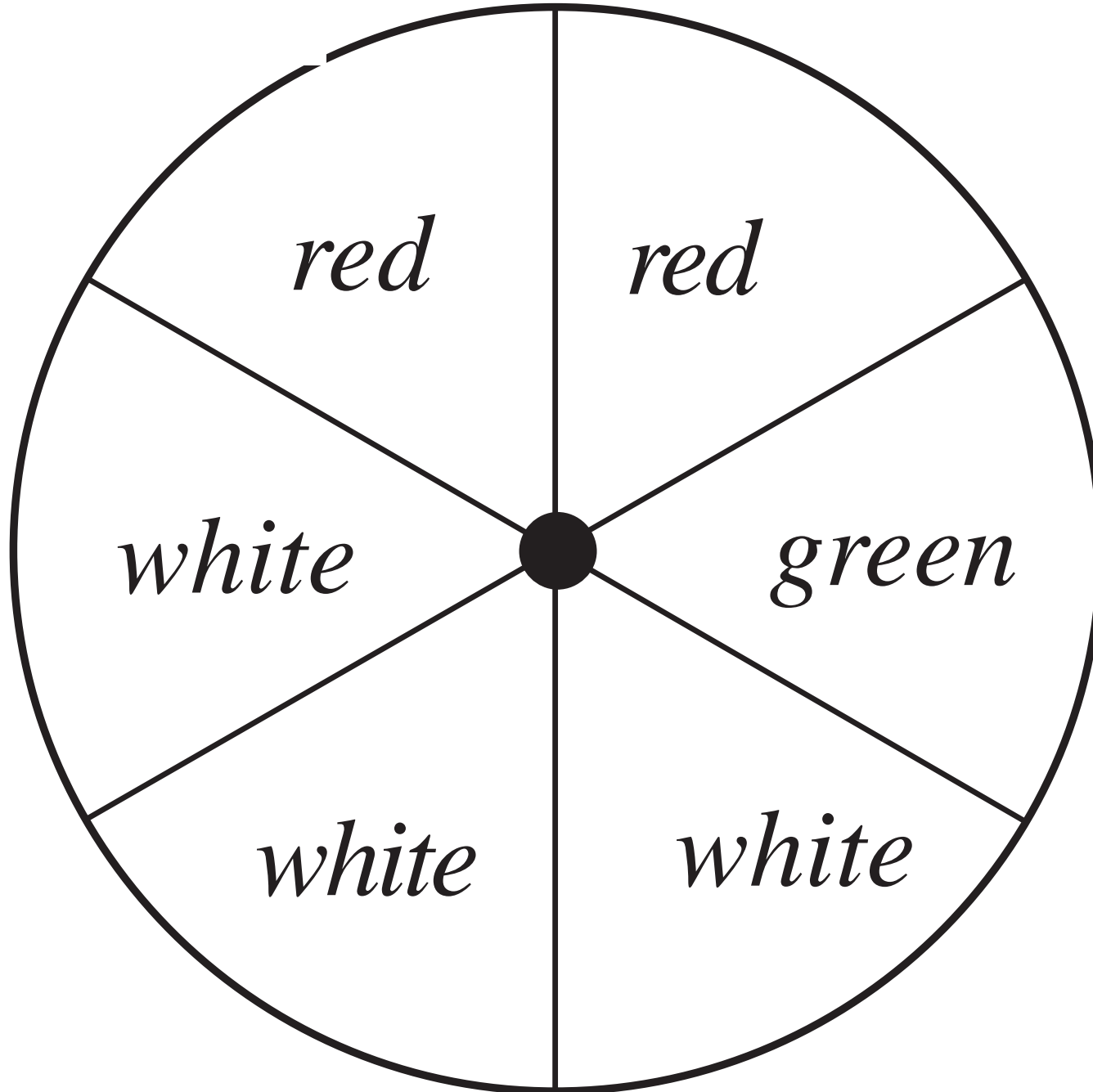
Sum	0	1	2	3	4	5	6	7	8	9	10	11	12	13
Frequency														
Relative frequency														
Probability														



$$n = \boxed{}$$

Product	1	2	3	4	5	6	8	9	10	12	15	16	18	20	24	25	30	36
Frequency																		
Relative frequency																		
Probability																		

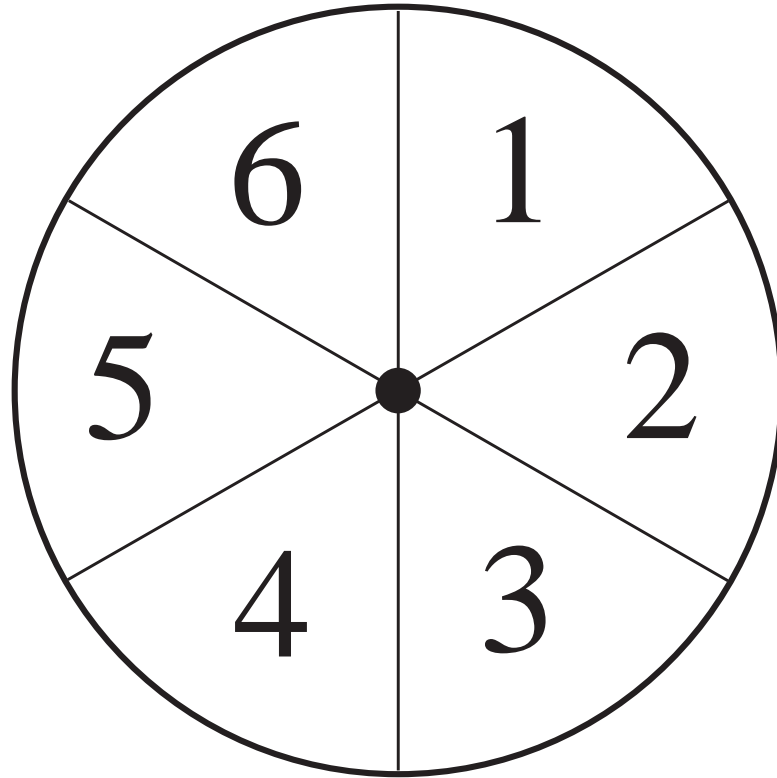




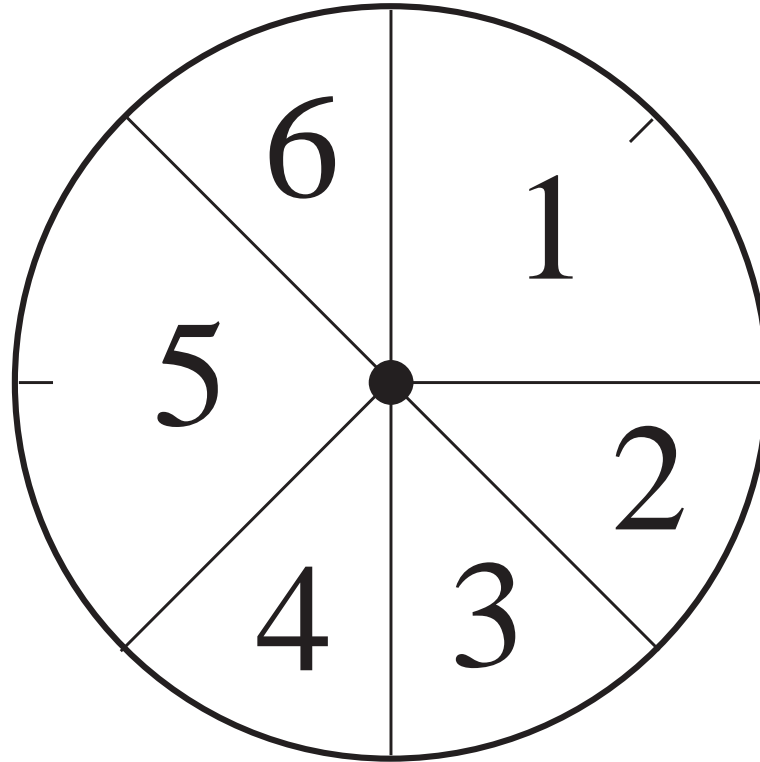
Outcome	Frequency	Relative frequency
1	145	
2	168	
3	189	
4	186	
5	162	
6	150	

$$n = \boxed{}$$

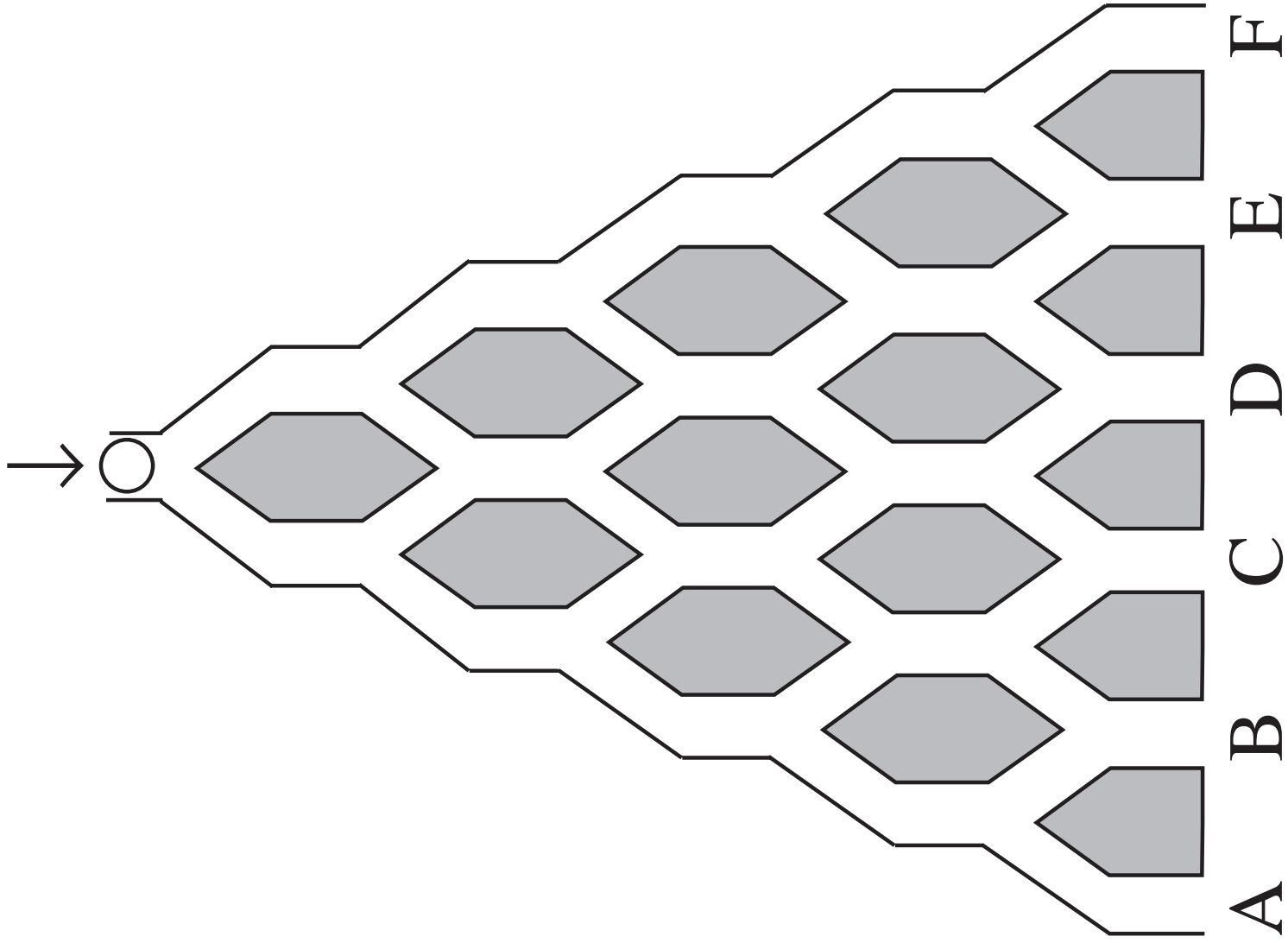
Outcome	1	2	3	4	5
Frequency					
Relative frequency					



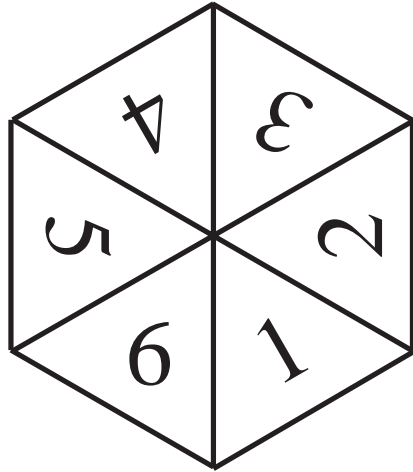
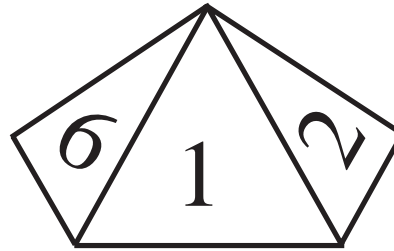
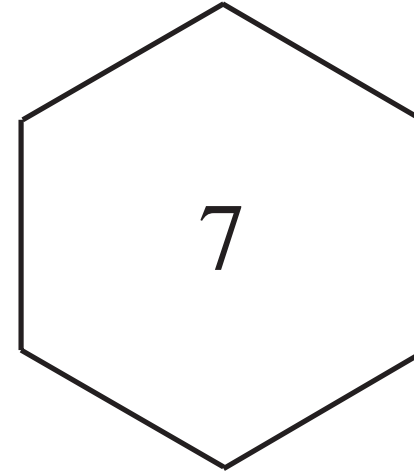
Outcome	1	2	3	4	5	6	At least 5	At most 5
Probability								



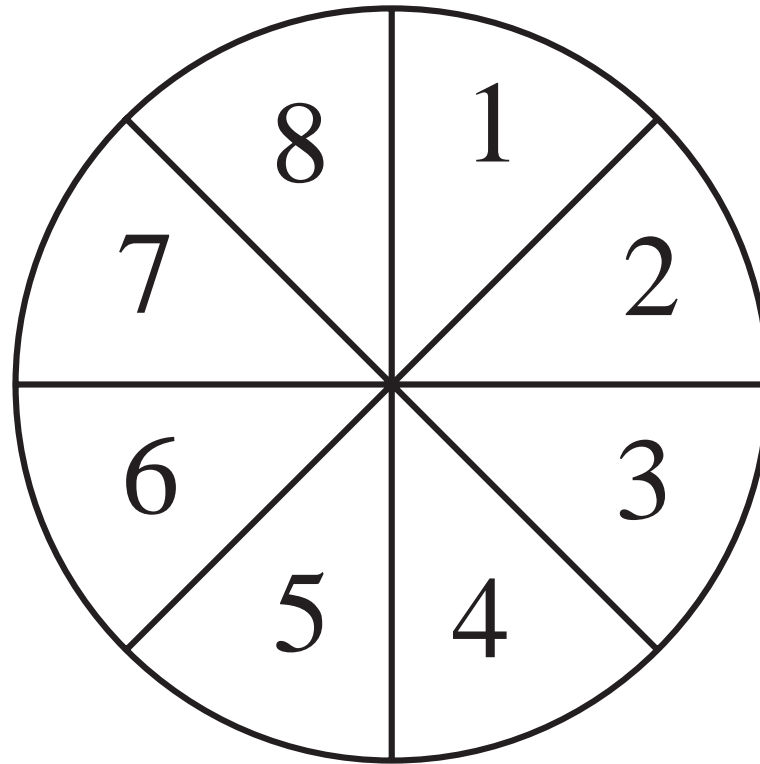
Outcome	1	2	3	4	5	6	At least 5	At most 5
Probability								



Outcome	A	B	C	D	E	F
Probability						

Top view

Side view

Bottom view


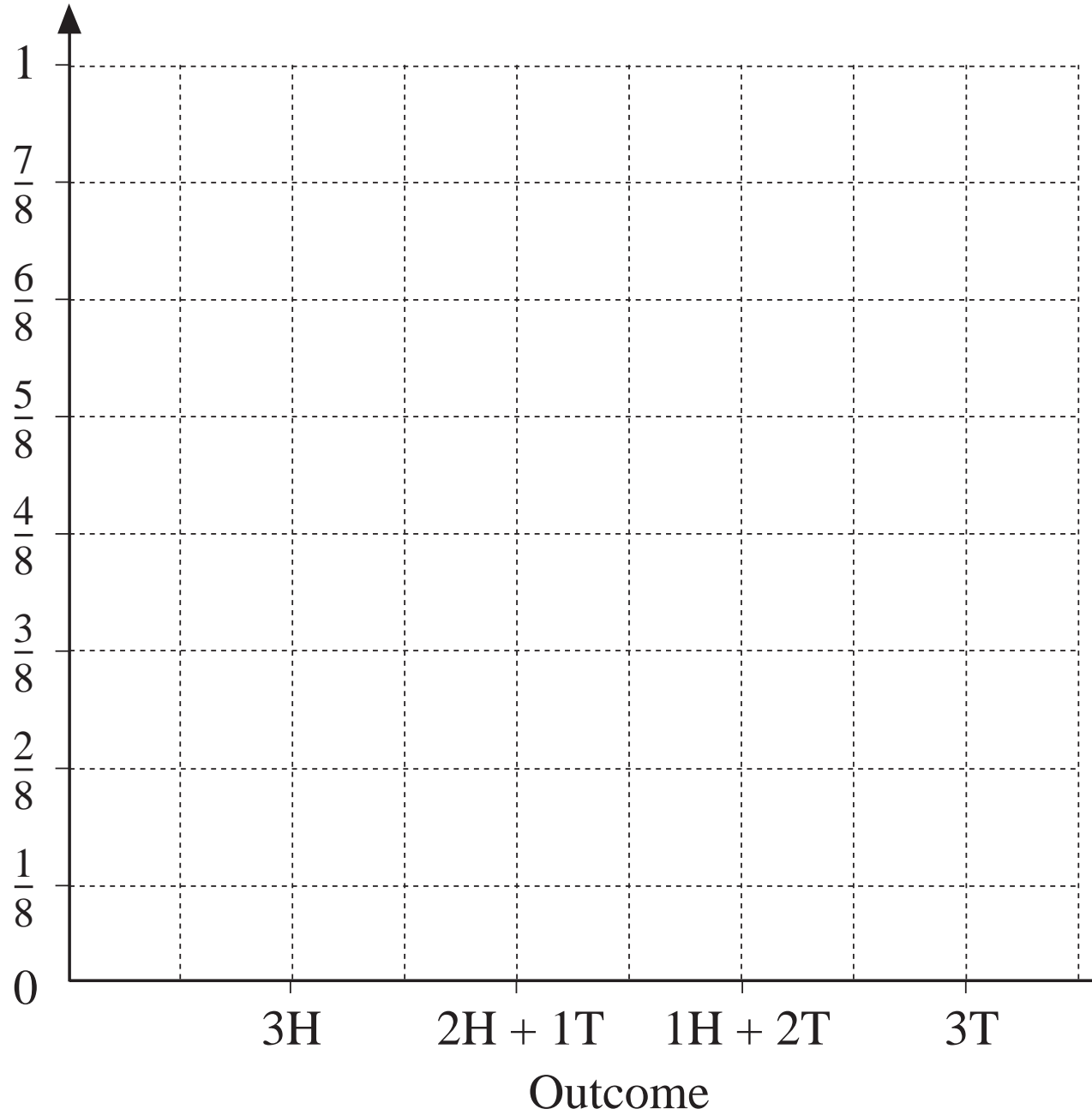
Outcome	1	2	3	4	5	6	7
Frequency	11	12	13	10	12	14	28
Relative frequency							

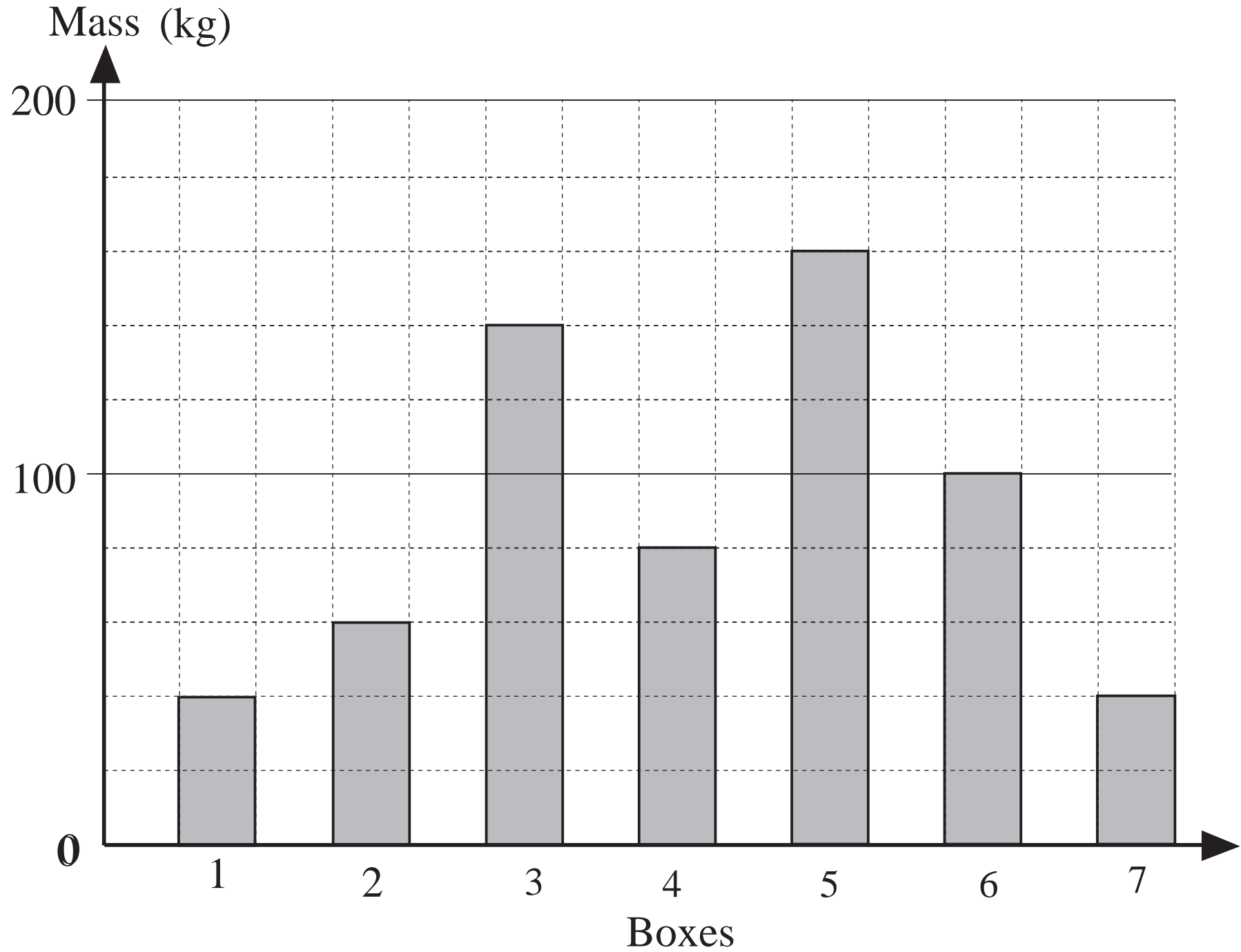


Outcome	1	2	3	4	5	6	7	8	≥ 7	≤ 4	prime number
Probability											

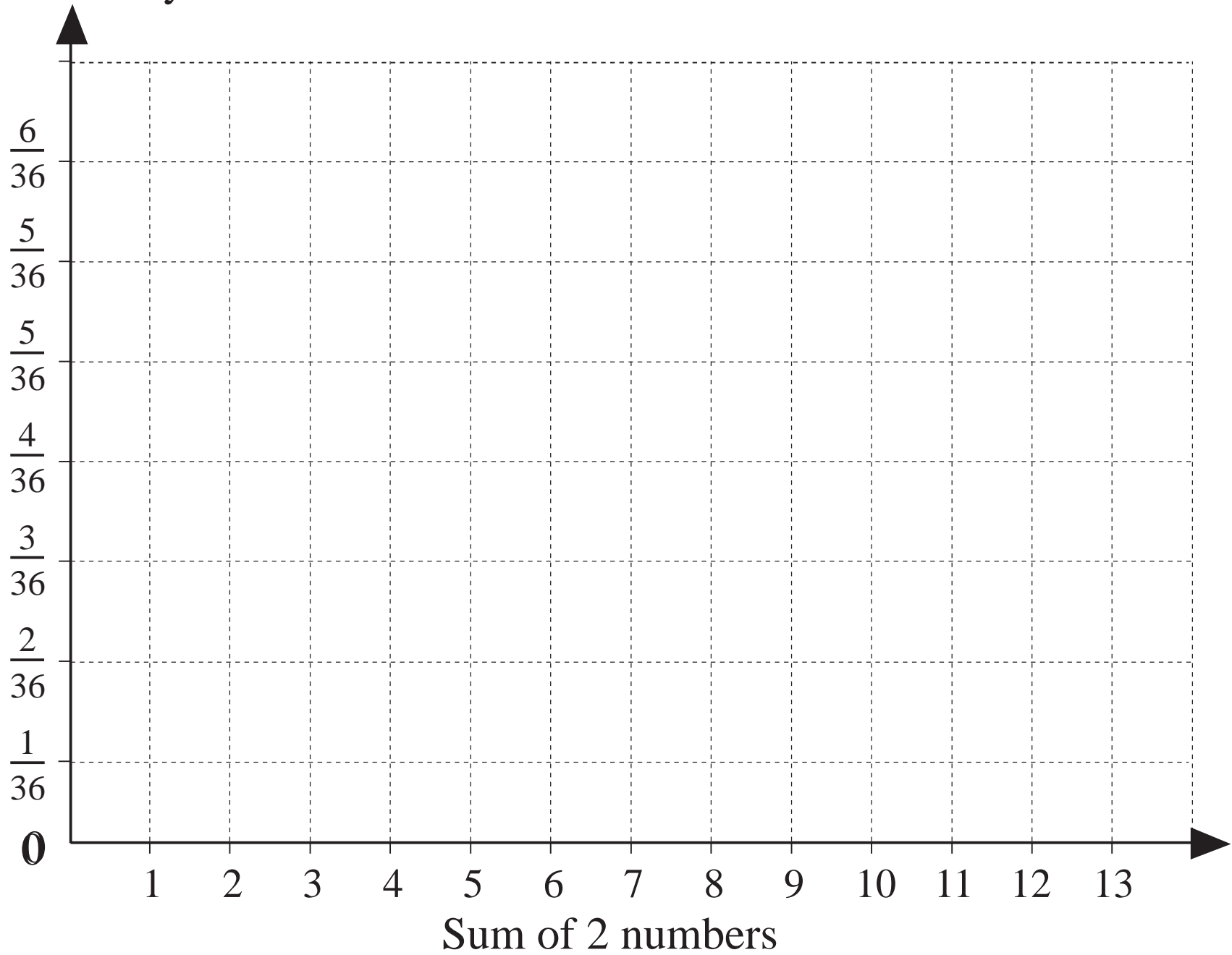
Outcome	1	2	3	4	5	6
Frequency	12	11	14	13	26	24
Relative frequency						

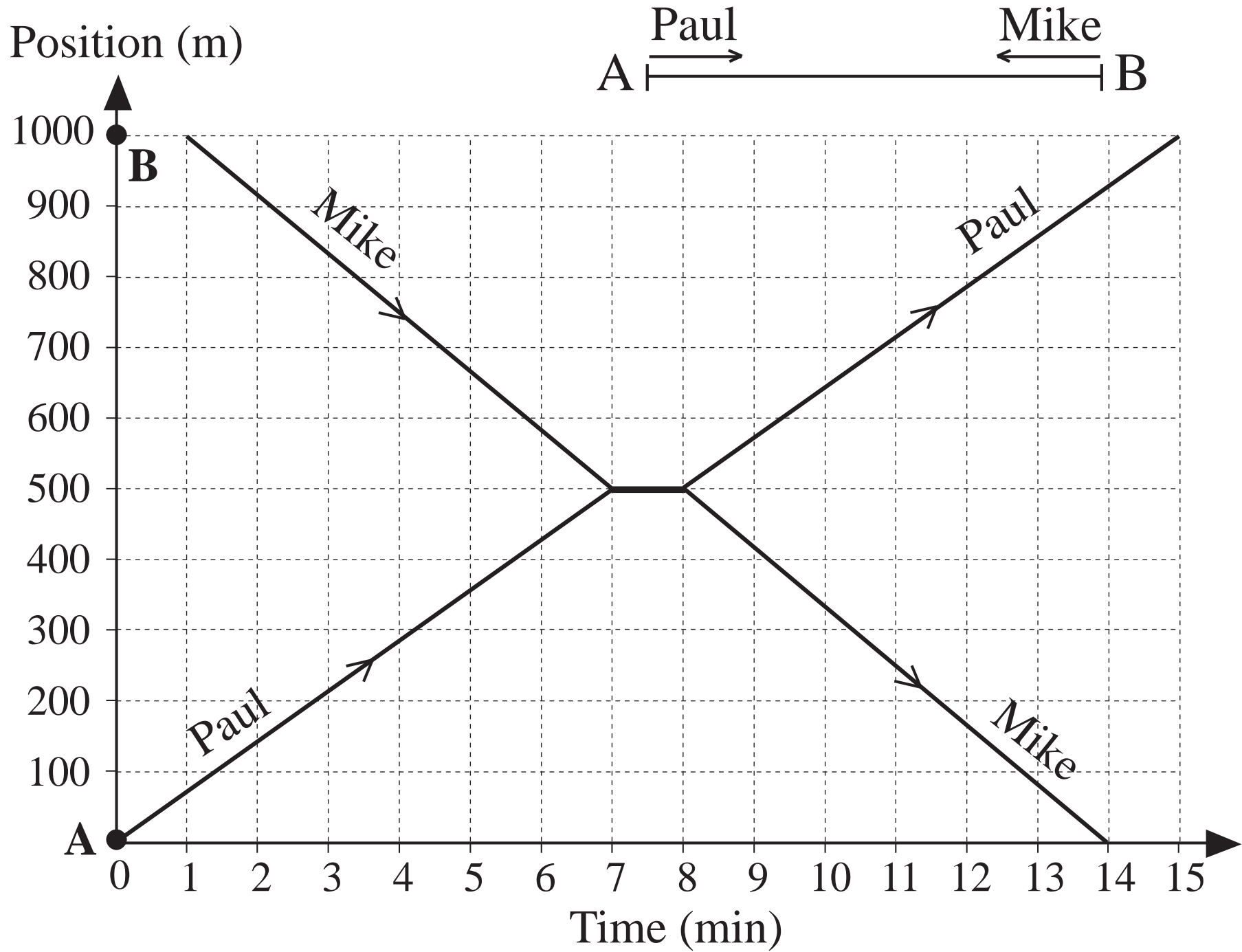
Probability





Probability





Horizontal clues only

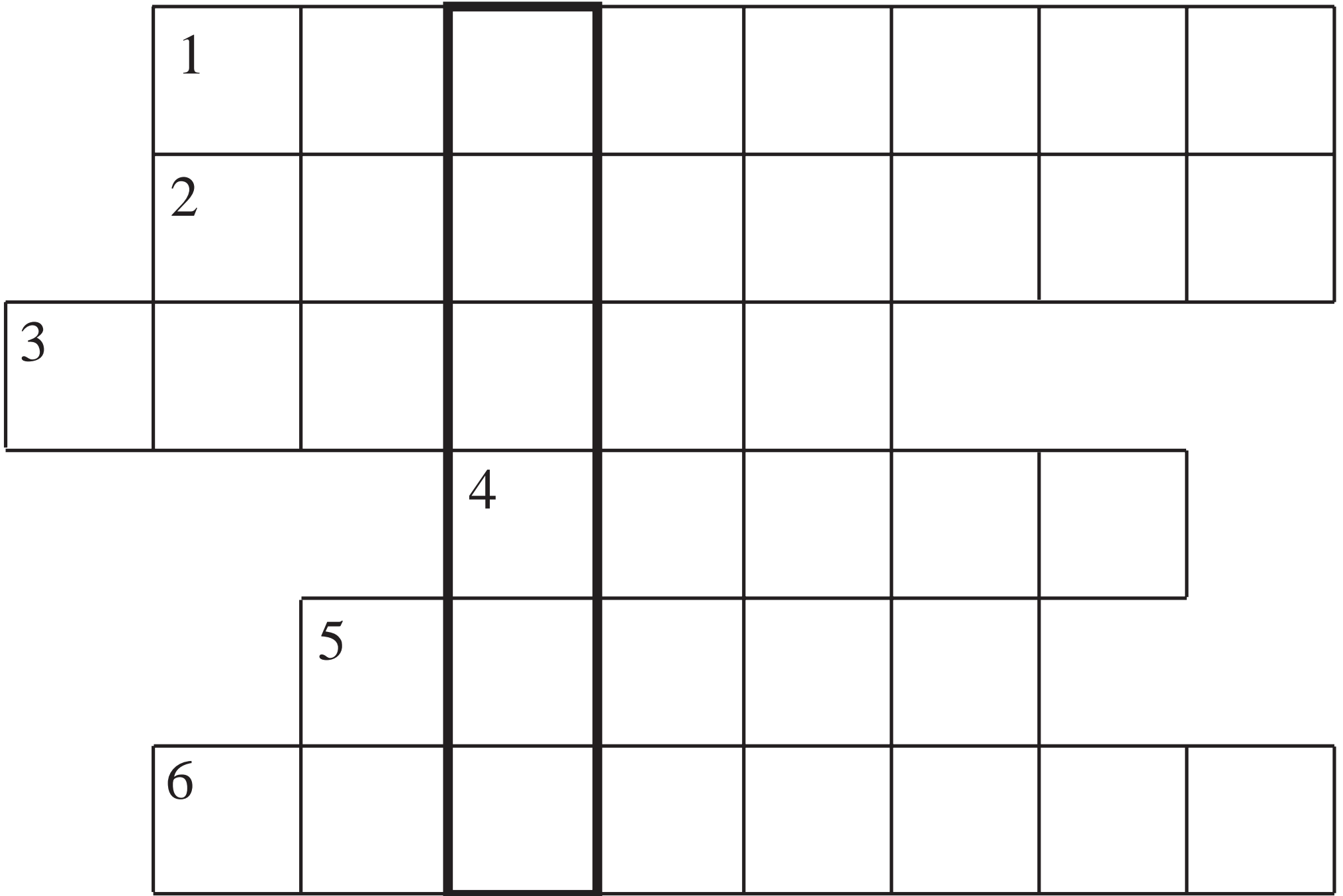
1. This word describes a number less than zero.
2. This word describes two straight lines in a plane which have no common point.
3. A quadrilateral with equal sides and equal angles.
4. A positive number with exactly two positive factors.
5. The number of vertices in a triangle.
6. This word describes number greater than zero.

1								
2								
3								
			4					
			5					
6								

Horizontal clues only

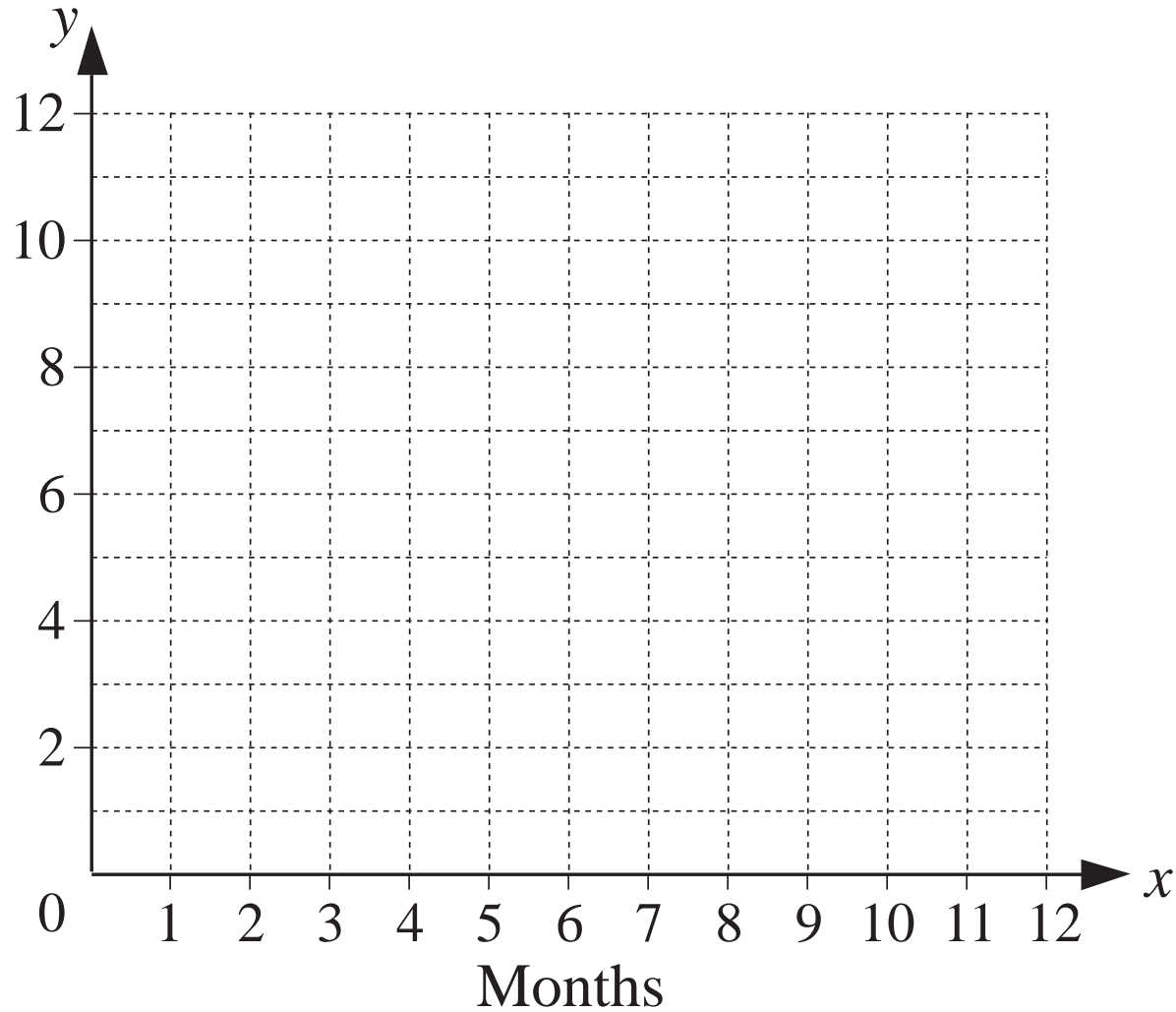
1. This word describes a number less than zero.
2. This word describes two straight lines in a plane which have no common point.
3. A quadrilateral with equal sides and equal angles.
4. A positive number with exactly two positive factors.
5. The number of vertices in a triangle.
6. This word describes number greater than zero.

1								
2								
3								
			4					
			5					
6								

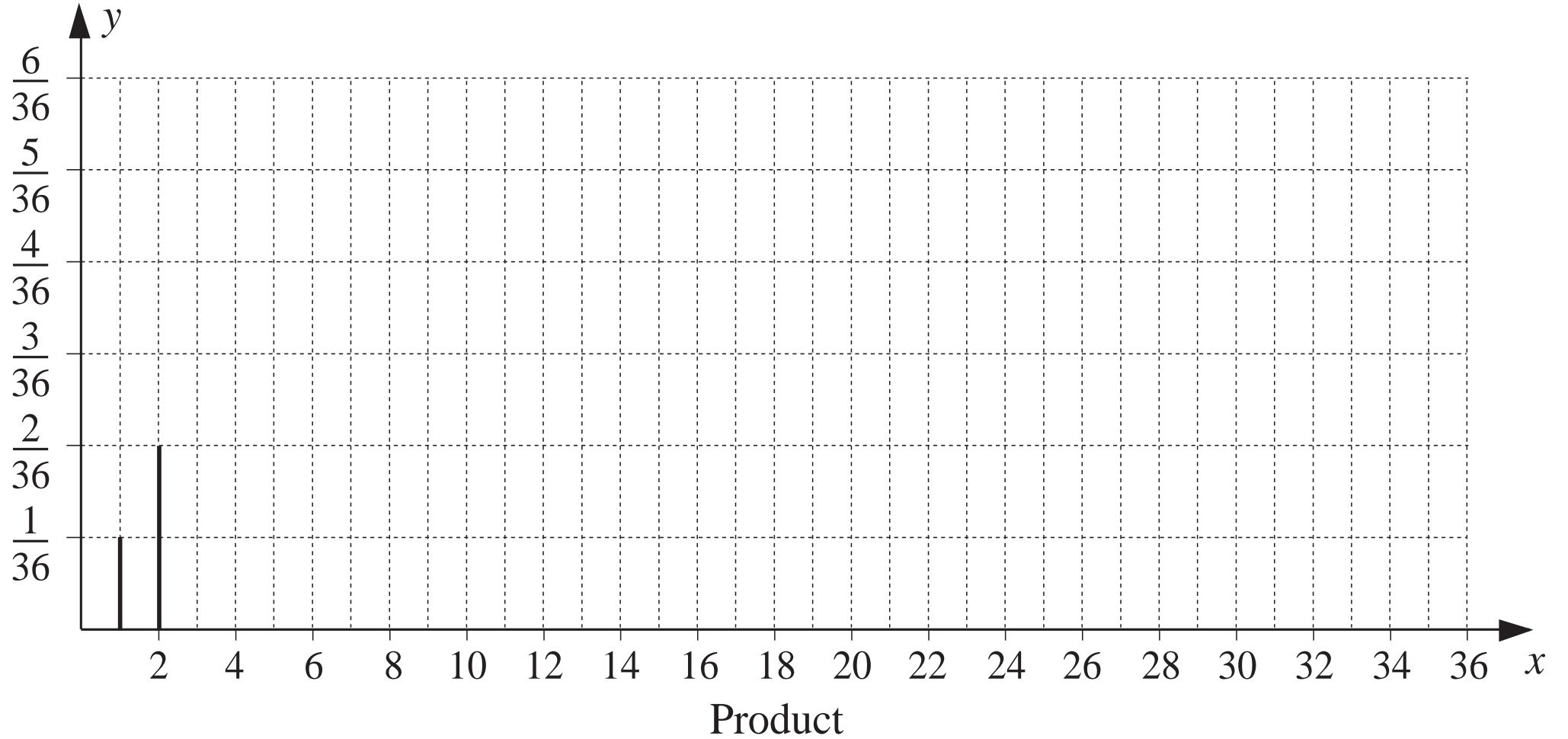


Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.

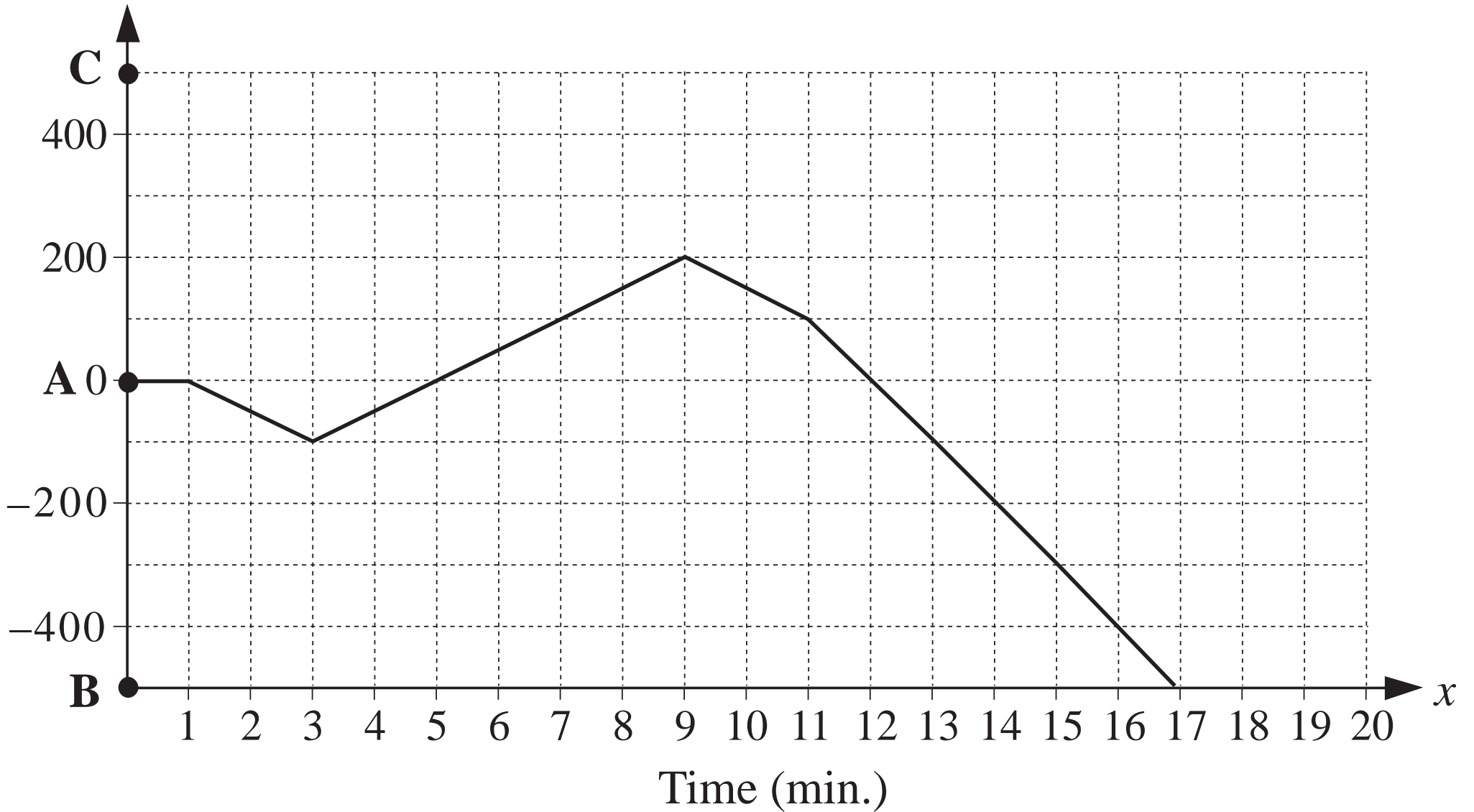
Number of birthdays

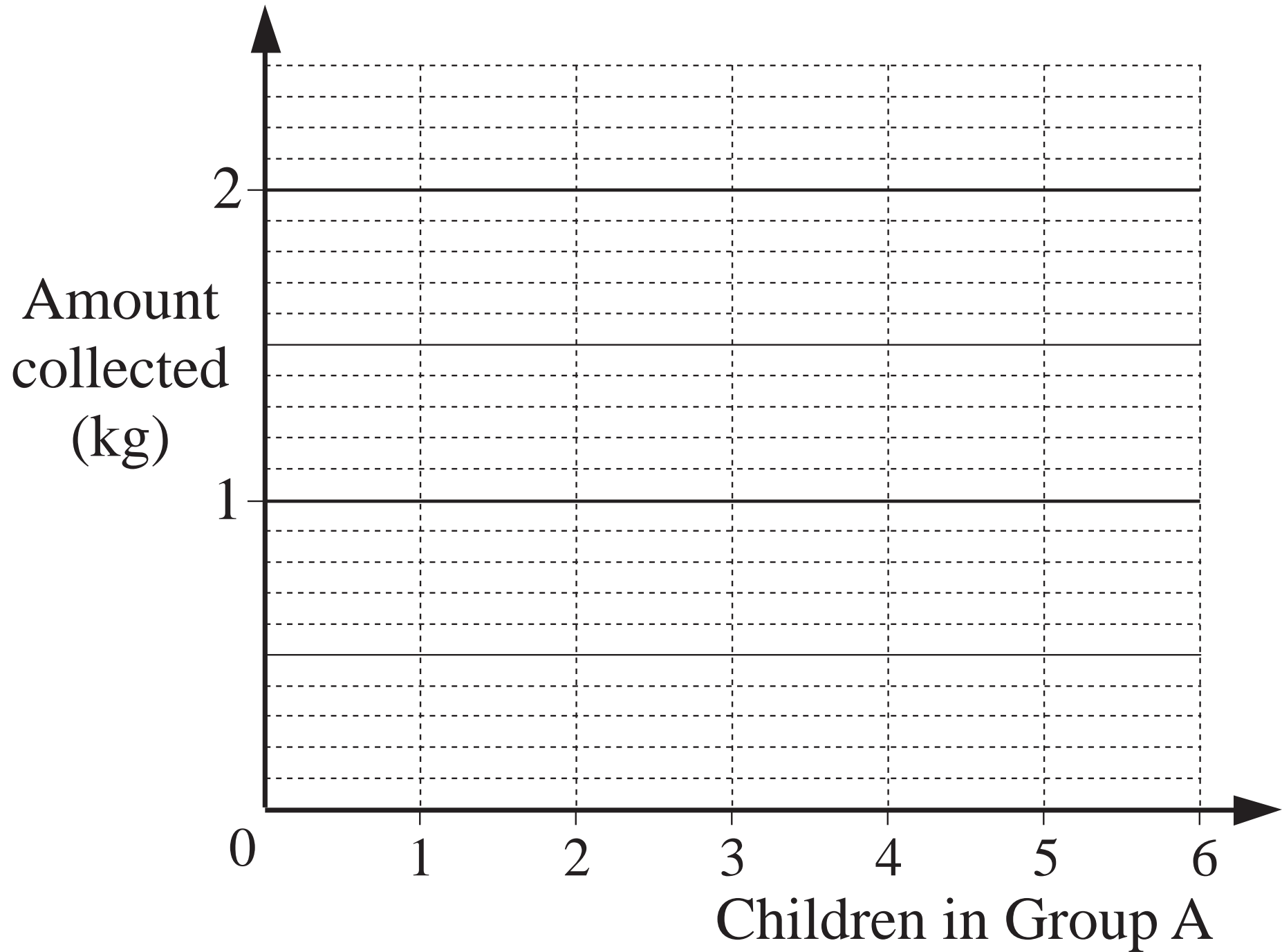


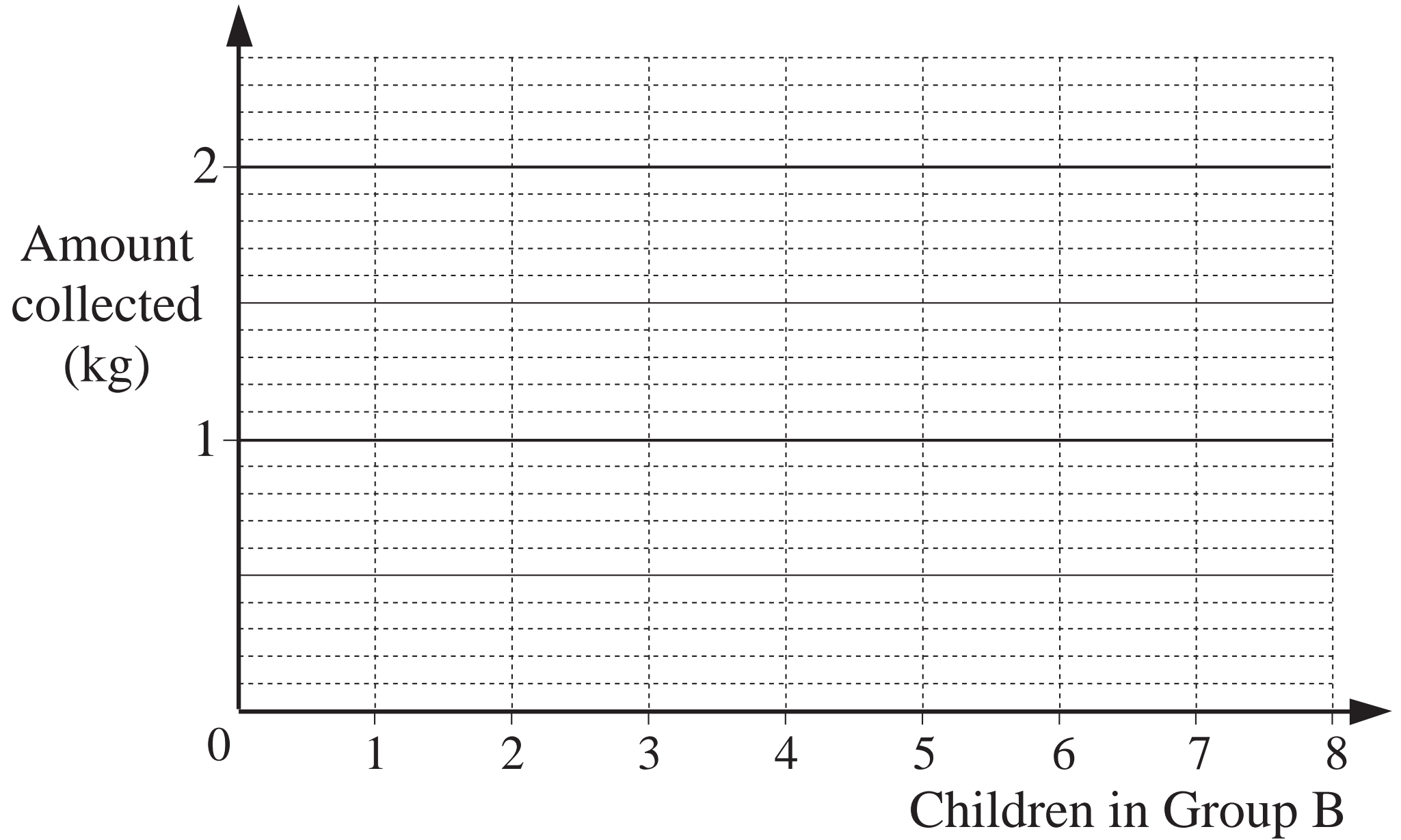
Probability

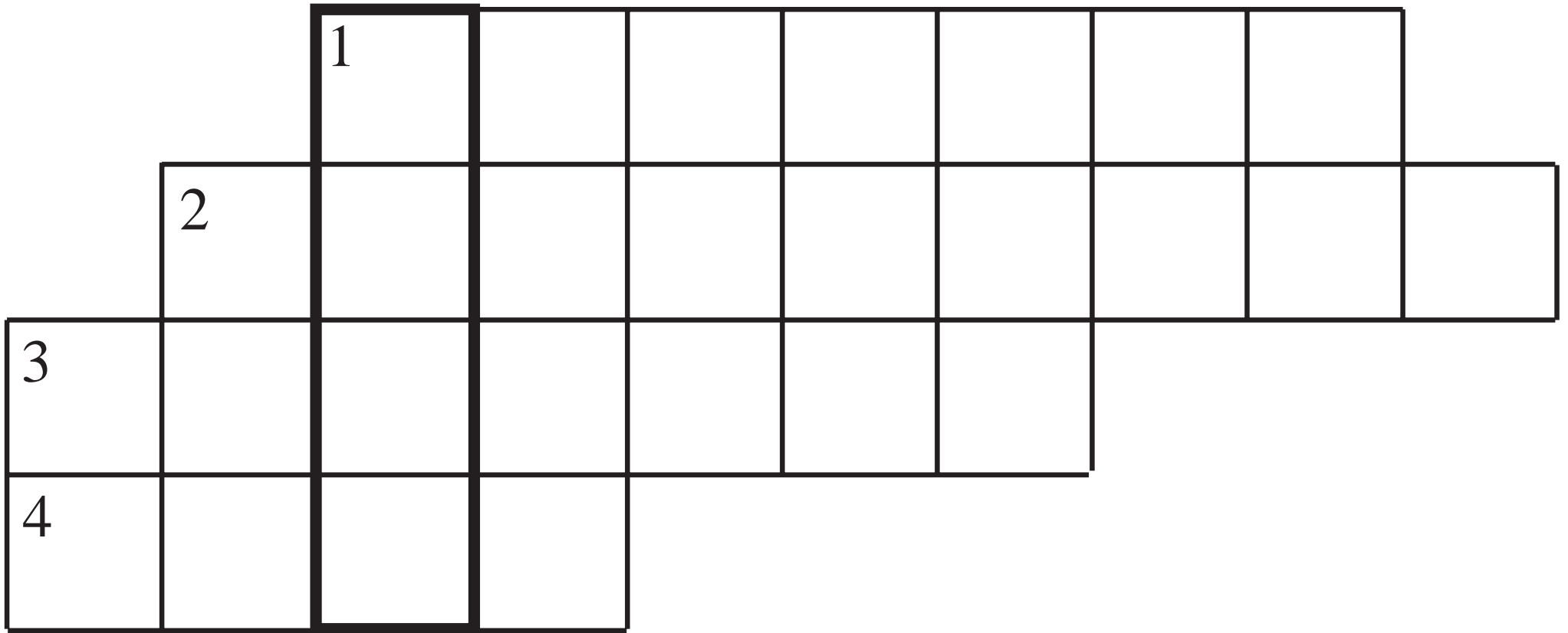


Distance (m)









Time (hours)	0	2	4	6	8	10	12	14	16	18	20	22	24
Temperature (°C)	10.6	10.0	9.5	11.1	15.2	20.9	25.0	28.3	29.0	26.1	21.0	17.4	13.0

LP 149/5

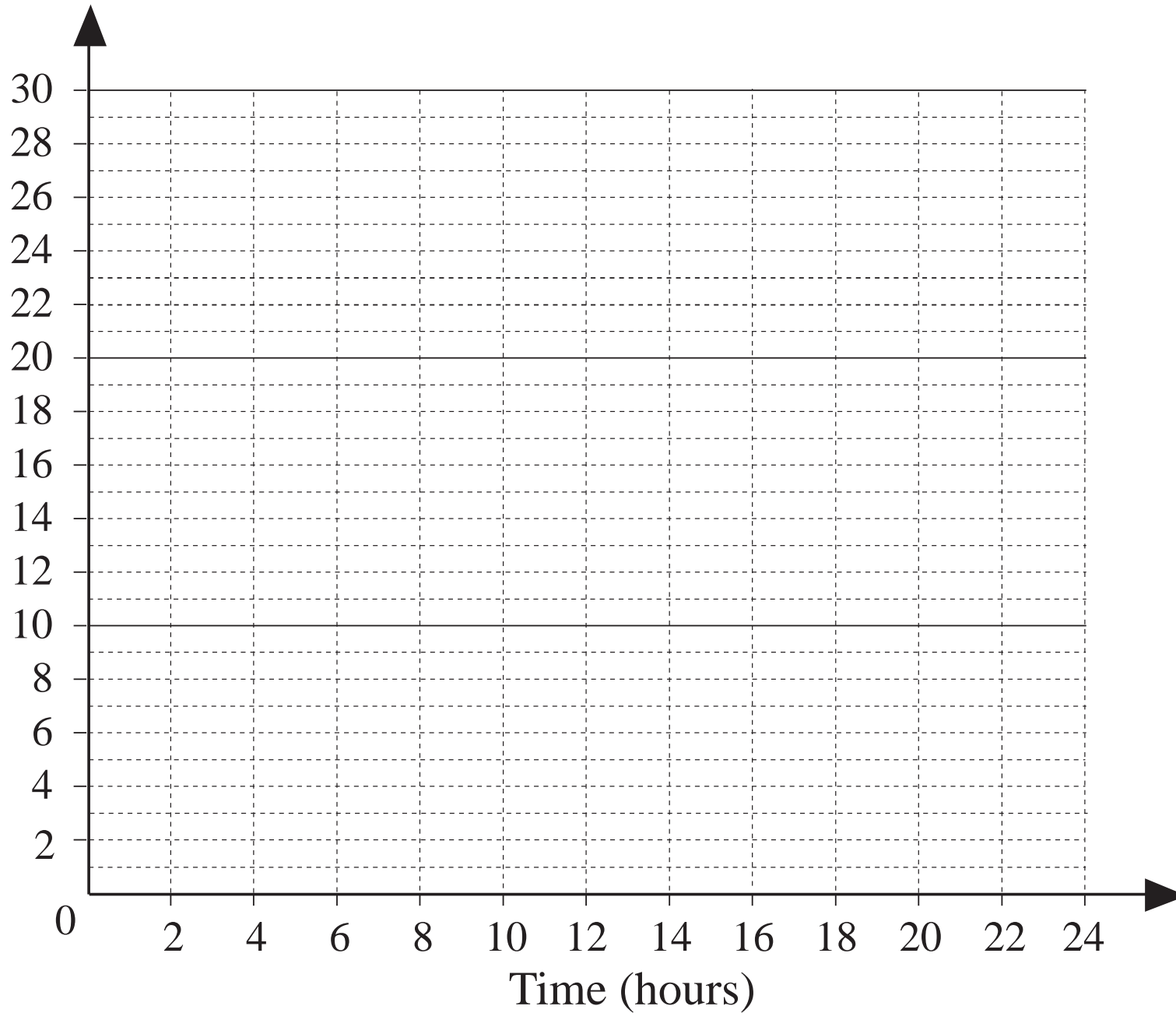
Time (hours)	0	2	4	6	8	10	12	14	16	18	20	22	24
Temperature (°C)	-10	-11	-11	-10	-8	-3	1	4	5	2	0	-4	-8

LP 149/6

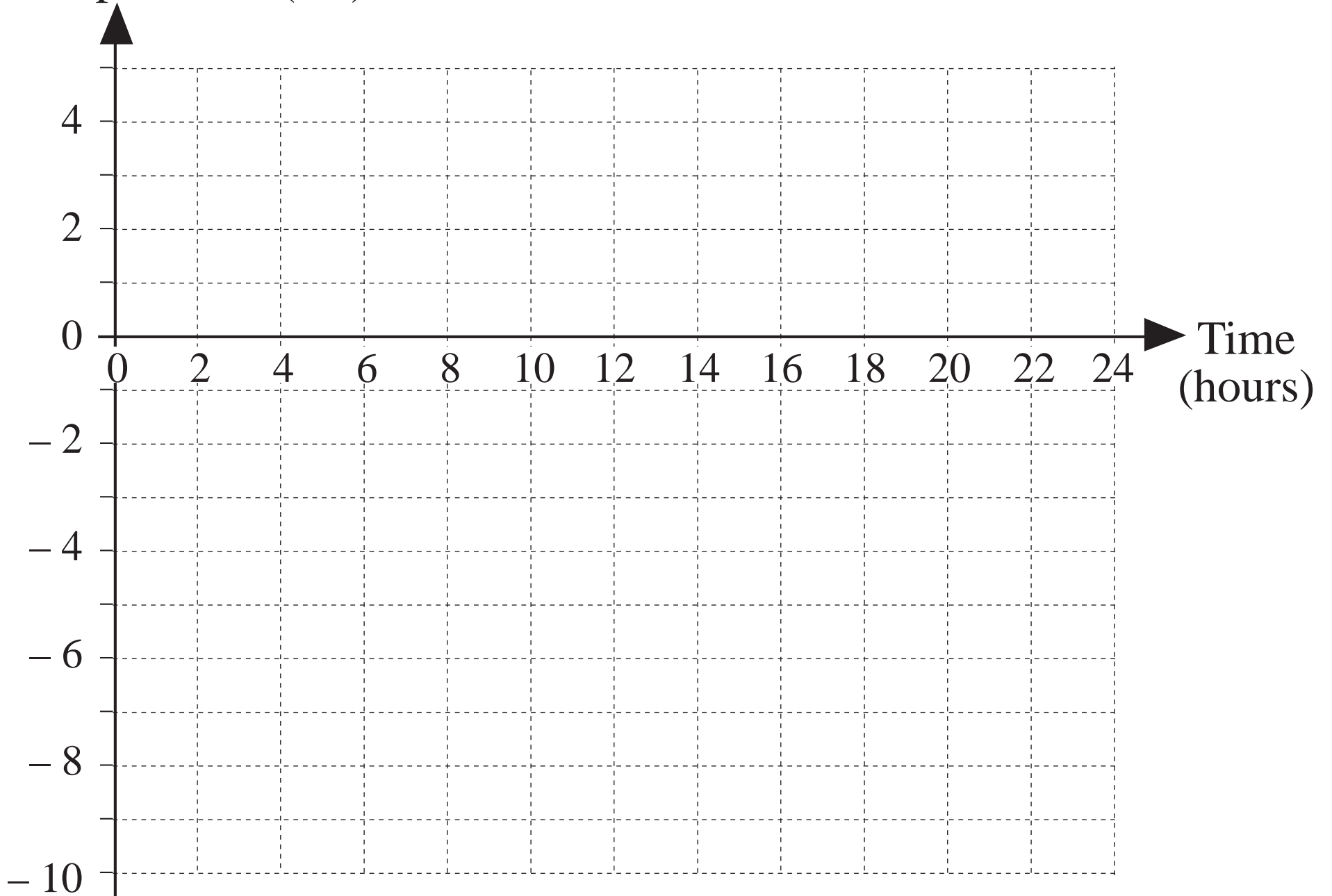
Day	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Variety A	5	5	4	1	0	2	5
Variety B	5	3	3	3	7	9	6

LP 150/1

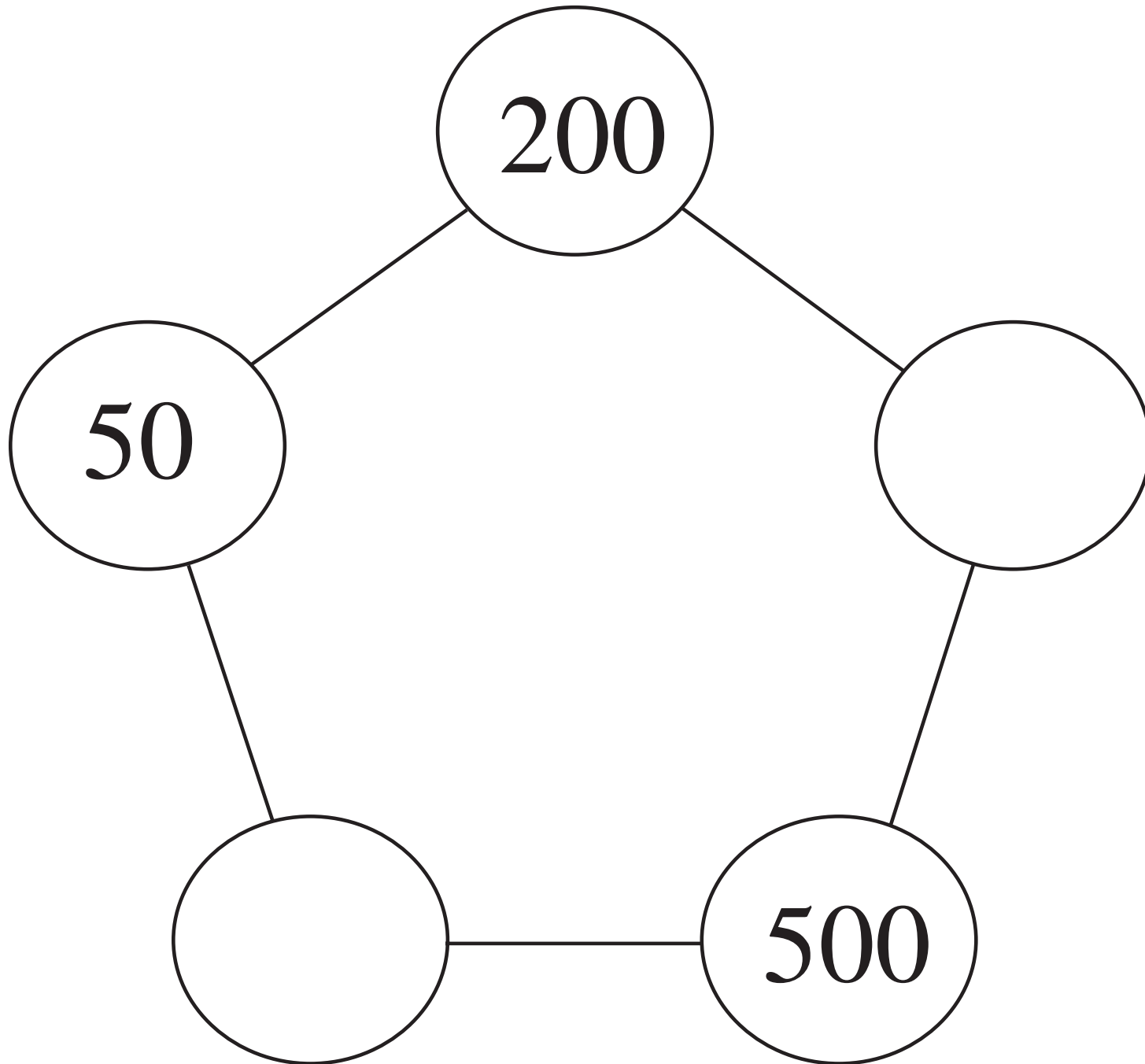
Temperature ($^{\circ}\text{C}$)



Temperature ($^{\circ}\text{C}$)



	English	Mathematics	History	Geography	Mean mark per pupil
Anne	7	8	6	7	
Brenda	8	8	7	5	
Claire	9	10	9	8	
Darren	7	9	9	7	
Ella	10	9	5	8	
Freddy	8	10	6	5	
Graham	7	9	7	9	
Mean mark per subject					



a)

		2	0	8	1	7
			4	0	5	3
	1	0	4	1	0	4
+		5	0	5	0	5
<hr/>						

b)

	2	2	0	8	1	7
-		6	7	0	9	2
<hr/>						

c)

		8	3	6	0	5
				×	1	4
<hr/>						
+						
<hr/>						

LP 151/8

a)

		1	0	.	2	
	1	0	3	.	4	5
+		6	2	.	9	7
<hr/>						

b)

	3	6	.	8	2
-	1	4	.	5	9
<hr/>					

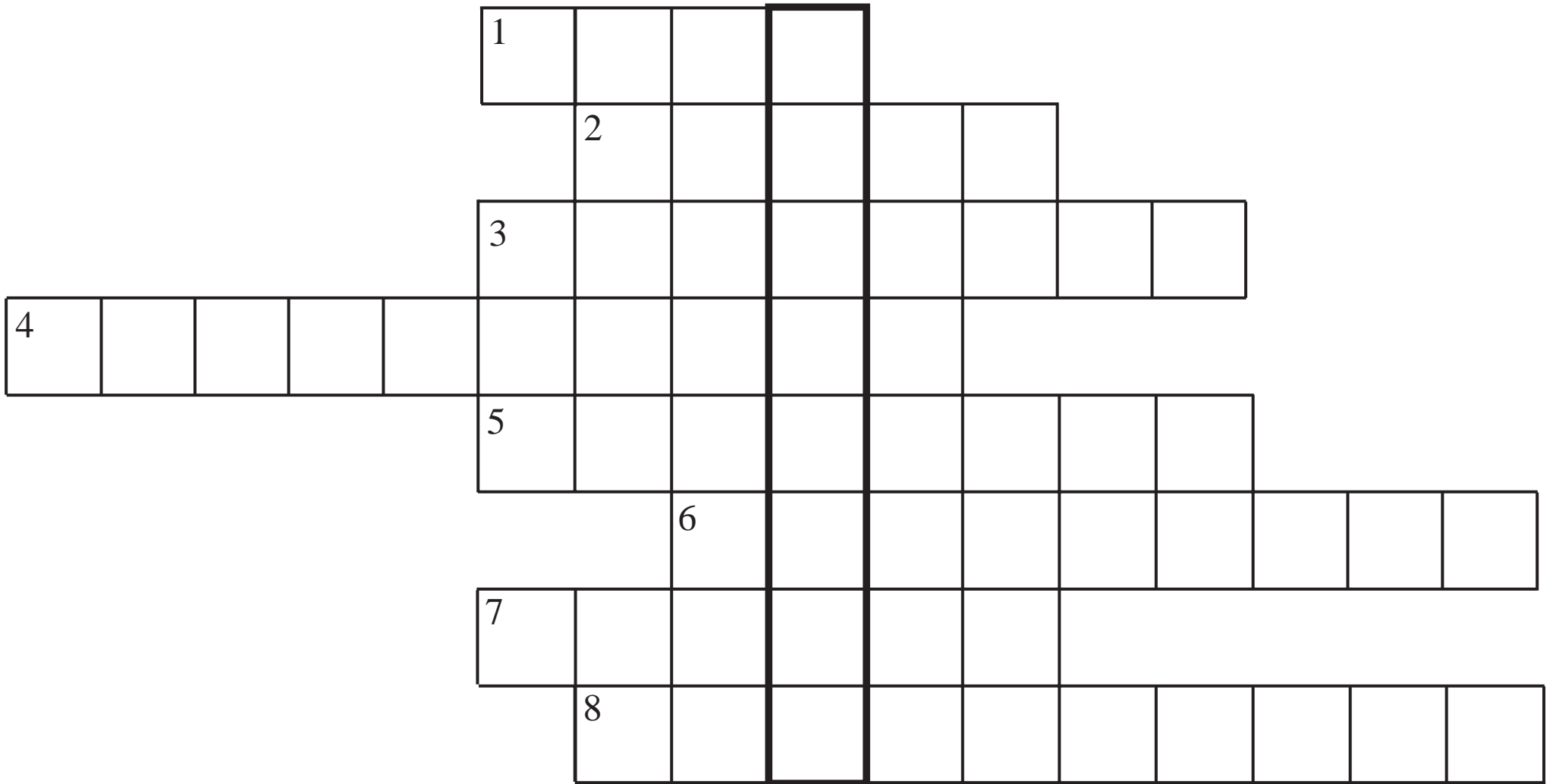
c)

		4	.	3
	×	7		
<hr/>				

d)

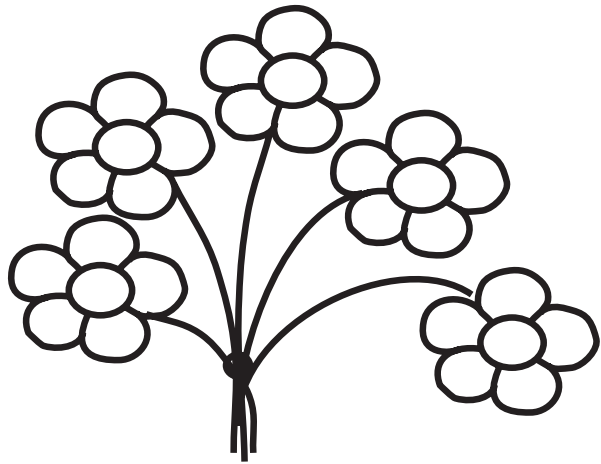
4	6	.	8
<hr/>			

LP 152/7



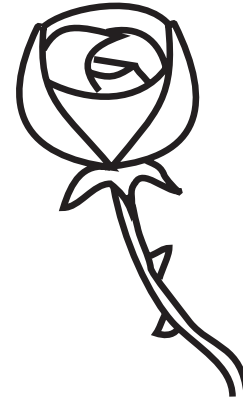
63	64	65	66	67
73	74	75	76	77
83	84	85	86	87
93	94	95	96	97

Daisies



99 p a bunch

Roses



50 p each

	A	B
+	B	C
	D	A

+		

+		

+		

+		

+		

+		

+		

+		

+		

+		

+		

+		

+		

+		

+		

A															
B															
C															
D															

a) i) $3 + 2 =$ ii) $3 + 0 =$ iii) $3 + (-2) =$

iv) $3 + (-4) =$ v) $3 + (-6) =$

b) i) $-3 + (-2) =$ ii) $-3 + 0 =$ iii) $-3 + 2 =$

iv) $-3 + 4 =$ v) $-3 + 6 =$

c) i) $25 + (-41) + 12 + (-10) =$

ii) $-100 + (-30) + 78 + (-48) =$

iii) $5000 + (-2000) + (-3000) =$

iv) $-85\,000 + (-15\,000) + (-20\,000) =$

v) $-236\,700 + 0 =$

a) i) $20 - (+ 14) =$

ii) $20 - (+ 36) =$

iii) $40 - (+ 40) =$

iv) $35 - (- 20) =$

v) $- 30 - (- 10) =$

vi) $- 30 - (- 30) =$

vii) $- 20 - (- 50) =$

viii) $- 20 - (+ 30) =$

b) i) $20 + (- 14) =$

ii) $20 + (- 36) =$

iii) $40 + (- 40) =$

iv) $35 + (+ 20) =$

v) $- 30 + (+ 10) =$

vi) $- 30 + (+ 30) =$

vii) $- 20 + (+ 50) =$

viii) $- 20 + (- 30) =$

- a) 56 437 rounded to the nearest hundred is .
- b) 3620 is 3615 rounded to the nearest .
- c) $46.5 \approx 47$ shows that rounds up to the next greater place-value.
- d) The inequality $2055 \leq x < 2065$ shows the possible values of x which round to as the nearest ten.
- e) The inequality shows the possible values of x which round to 10.40 as the nearest hundredth.

a) to the nearest 10

$$6208 \approx$$

$$14\ 035 \approx$$

$$90\ 455 \approx$$

$$383 \approx$$

$$9999 \approx$$

b) to the nearest 100

$$6208 \approx$$

$$14\ 035 \approx$$

$$90\ 455 \approx$$

$$383 \approx$$

$$9999 \approx$$

c) to the nearest 10th

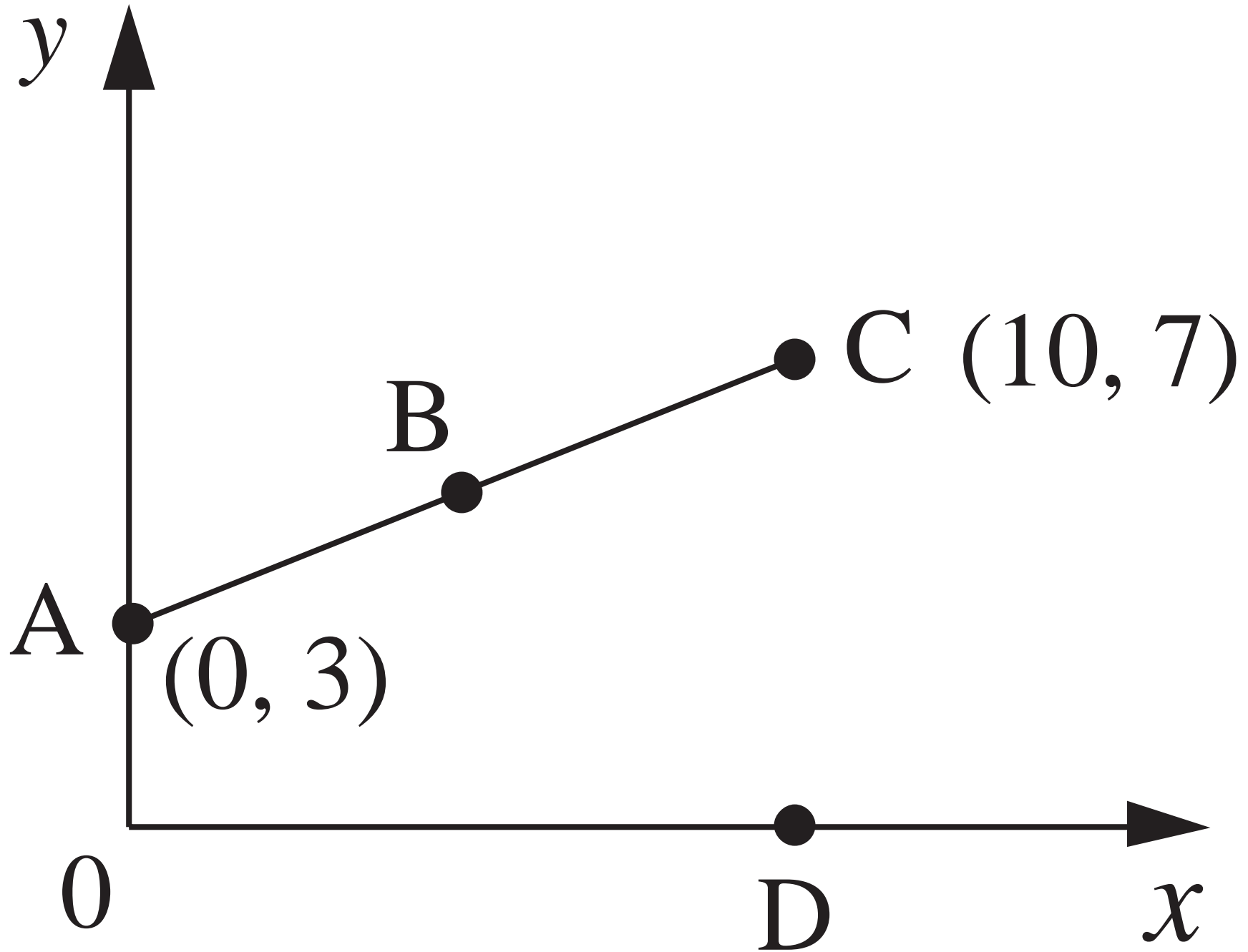
$$62.08 \approx$$

$$140.35 \approx$$

$$904.55 \approx$$

$$3.83 \approx$$

$$99.99 \approx$$



Time (minutes)		0							
Distance from start (km)	1st runner								
	2nd runner								
Difference (km)									

LP 154/7

a)

	3	7	.	0	2
1	4	9	.	4	
+	6	8	.	9	9

b)

	7	8	.	3	9
-	4	9	.	5	3

c)

	2	.	7
×	9		

d)

6	4	5	.	0
				6

LP 155/3

a) $650 - (450 + 120) =$

.....
or:

b) $650 - (450 - 120) =$

.....
or:

c) $50 \times (12 + 38) =$

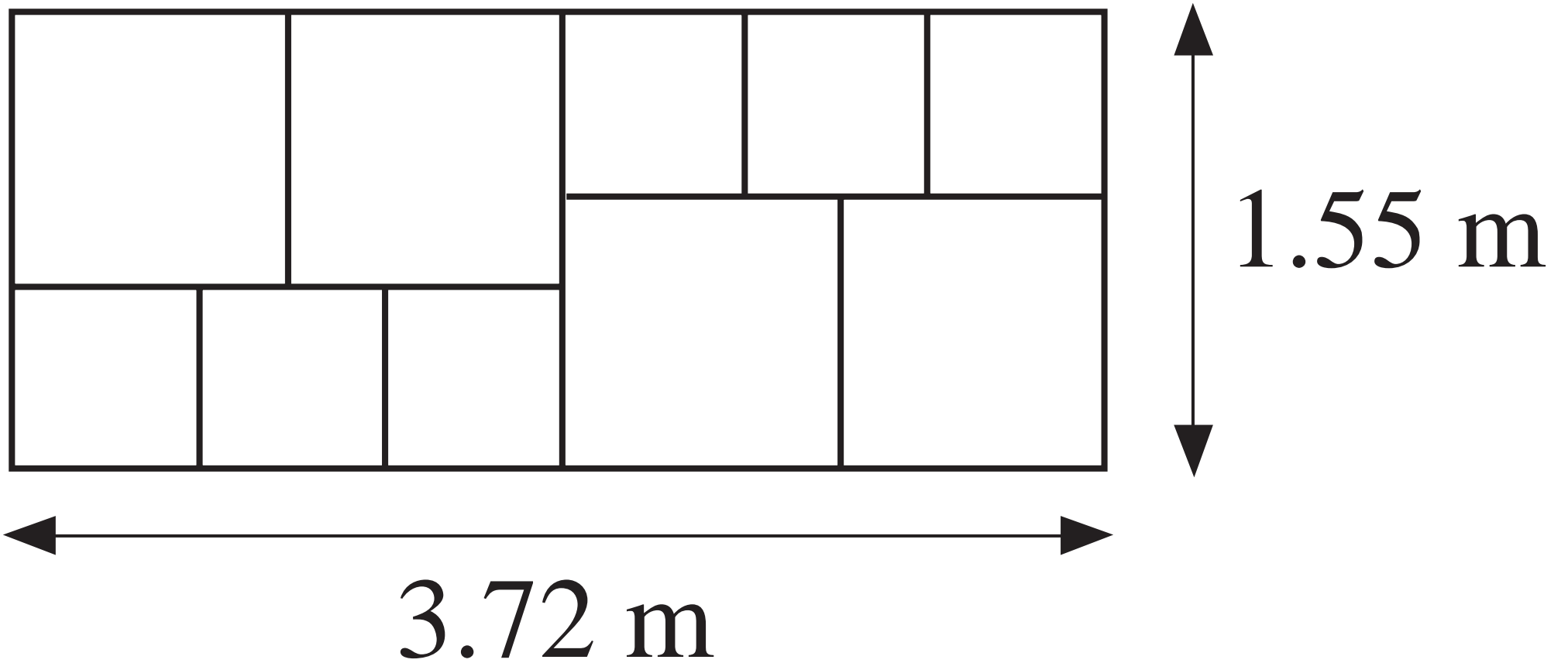
.....
or:

d) $(200 - 180) \times 7 =$

.....
or:

e) $(90 + 72) \div 18 =$

.....
or:



a)

a	-1301	$73\frac{1}{2}$	-2.4	584		$-\frac{4}{5}$		$1\frac{1}{8}$
b	-1297	$77\frac{1}{2}$	1.6		3.1		-11	

b)

u	1248	0	-9	$\frac{6}{10}$	-102	$3\frac{3}{20}$		6.9
v	416	0	-3	$\frac{2}{10}$			-210	$1\frac{1}{2}$

a) $843 + (157 + 36) = 1000 + \boxed{}$

b) $843 + (157 + k) = 1000 \boxed{} k$

c) $(843 + 41) + 157 = 1000 \boxed{} 41$

d) $(843 + n) + 157 = 1000 + \boxed{}$

e) $843 + (157 - 69) = 1000 \boxed{} 69$

f) $843 + (157 - t) = 1000 - \boxed{}$

g) $(843 - 55) + 157 = 1000 - \boxed{}$

h) $(843 - u) + 157 = 1000 \boxed{} u$

i) $(843 + 16) + (157 + 16) = 1000 \boxed{} \boxed{}$

j) $(843 + x) + (157 + x) = 1000 \boxed{} \boxed{}$

k) $(843 + 72) + (157 - 72) = \boxed{}$

l) $(843 + y) + (157 - y) = \boxed{}$

a) $(685 + 15) - 185 = 500 + \square$

b) $(685 + a) - 185 = 500 \square a$

c) $685 - (185 + 23) = 500 \square 23$

d) $685 - (185 + b) = 500 - \square$

e) $(685 - 45) - 185 = 500 \square 45$

f) $(685 - c) - 185 = 500 \square c$

g) $685 - (185 - 30) = 500 \square 30$

h) $685 - (185 - d) = 500 + \square$

i) $(685 + 51) - (185 + 51) = \square$

j) $(685 + e) - (185 + e) = \square$

k) $(685 + 4) - (185 - 4) = 500 \square \square$

l) $(685 + f) - (185 - f) = 500 \square \square$

m) $(685 - 10) - (185 + 10) = 500 \square \square$

n) $(685 - g) - (185 + g) = 500 \square \square$

a)

u	4	1.5	0.6	-2		$3\frac{1}{6}$		105	
v	1	3.5	4.4	7	-1.5		$\frac{12}{5}$		$-1\frac{3}{4}$

b)

s	5000	100	400	1		10	50		2.5
t	2	100	25		8			$\frac{1}{2}$	

- a) $(60 \times 3) \times 20 = 1200$ 3
- b) $(60 \times n) \times 20 = 1200 \times$
- c) $60 \times (20 \times 4) = 1200$ 4
- d) $60 \times (20 \times m) = 1200 \times$
- e) $(60 \div 3) \times 20 = 1200 \div$
- f) $(60 \div s) \times 20 = 1200$ s
- g) $60 \times (20 \div 4) = 1200$ 4
- h) $60 \times (20 \div t) = 1200 \div$
- i) $(60 \times 2) \times (20 \times 2) = 1200 \times$
- j) $(60 \times u) \times (20 \times u) = 1200 \times$
- k) $(60 \div 4) \times (20 \div 4) = 1200 \div$
- l) $(60 \div v) \times (20 \div v) = 1200 \div$
- m) $(60 \times 5) \times (20 \div 5) =$
- n) $(60 \times a) \times (20 \div a) =$

a) $(1500 \times 2) \div 30 = 50 \times \square$

b) $(1500 \times a) \div 30 = 50 \square a$

c) $1500 \div (30 \times 2) = 50 \square 2$

d) $1500 \div (30 \times a) = 50 \div \square$

e) $(1500 \div 2) \div 30 = 50 \div \square$

f) $(1500 \div a) \div 30 = 50 \square a$

g) $1500 \div (30 \div 2) = 50 \square 2$

h) $1500 \div (30 \div a) = 50 \times \square$

i) $(1500 \times 2) \div (30 \div 2) = 50 \square \square$

j) $(1500 \times a) \div (30 \div a) = 50 \square \square$

k) $(1500 \div 2) \div (30 \times 2) = 50 \square \square$

l) $(1500 \div a) \div (30 \times a) = 50 \square \square$

m) $(1500 \times 2) \div (30 \times 2) = 50 \square \square$

n) $(1500 \times a) \div (30 \times a) = 50 \square \square$

o) $(1500 \div 2) \div (30 \div 2) = 50 \square \square$

p) $(1500 \div a) \div (30 \div a) = 50 \square \square$

- a) $\frac{1}{2}$ of 60 50% of 60
- b) 40% of 50 m 20% of 100 m
- c) $\frac{3}{4}$ of £100 70% of £100
- d) 30% of 90 kg 20% of 150 kg
- e) 20% of 5 km $\frac{2}{10}$ of 5 km
- f) $\frac{3}{5}$ of £70 60% of £75
- g) 75% of 2 litres 1.75 litres
- h) $\frac{1}{10}$ of 42 km 0.42 km
- i) 105% of 10 litres $1\frac{1}{5}$ of 10 litres
 10.5 litres

a)

	11	7
9		
	5	10

b)

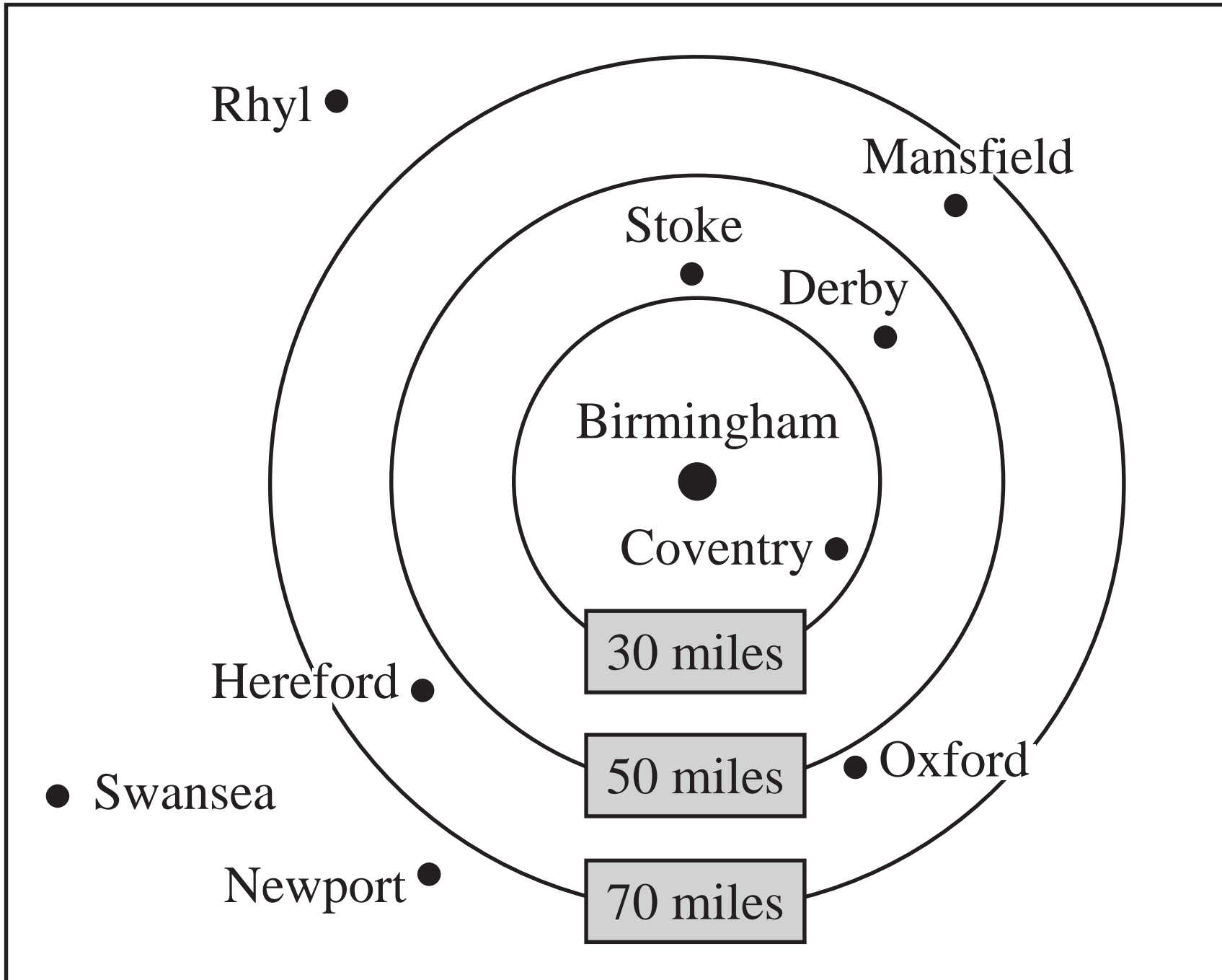
10	3	
5		
	11	4

c)

14		12
10		8

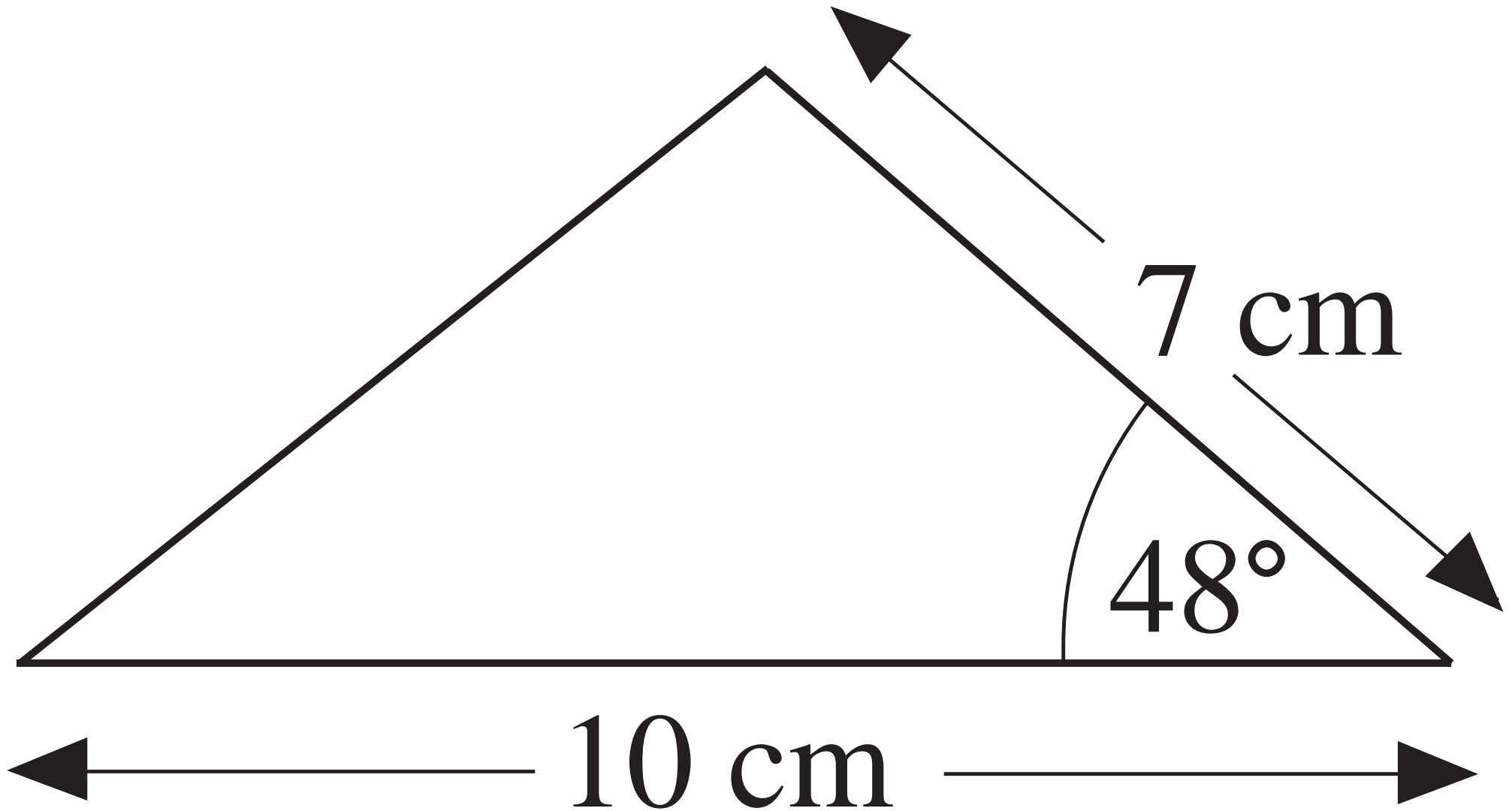
- a) i) $143 \text{ m } 45 \text{ cm} = \boxed{} \text{ cm}$ ii) $375 \text{ cm} = \boxed{} \text{ m}$
- iii) $62 \text{ cm } 4 \text{ mm} = \boxed{} \text{ mm}$
- iv) $816 \text{ mm} = \boxed{} \text{ cm} = \boxed{} \text{ m}$
- v) $42 \text{ km } 60 \text{ m} = \boxed{} \text{ m}$ vi) $4950 \text{ m} = \boxed{} \text{ km}$
- b) i) $4 \text{ litres } 5 \text{ cl} = \boxed{} \text{ cl}$ ii) $1230 \text{ cl} = \boxed{} \text{ l}$
- iii) $3 \text{ cl } 6 \text{ ml} = \boxed{} \text{ ml}$
- iv) $720 \text{ ml} = \boxed{} \text{ cl} = \boxed{} \text{ litres}$
- c) i) $61 \text{ kg } 80 \text{ g} = \boxed{} \text{ g}$ ii) $5200 \text{ g} = \boxed{} \text{ kg}$
- iii) $4 \text{ t } 380 \text{ kg} = \boxed{} \text{ kg}$ iv) $6025 \text{ kg} = \boxed{} \text{ t}$

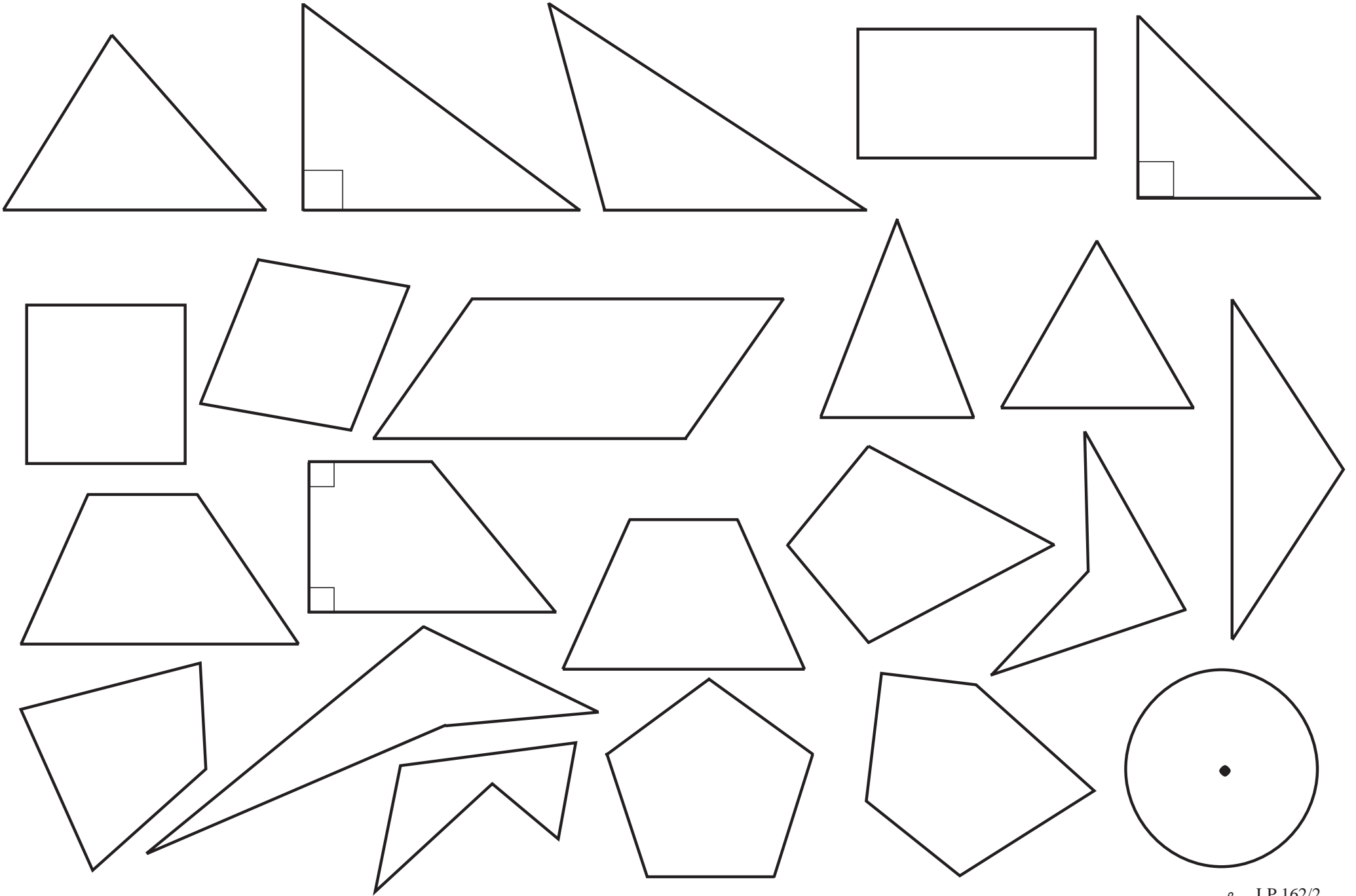
Monday to Friday	Saturday	Sunday
9 am 2 pm 6.30 pm	11.30 am	No collection

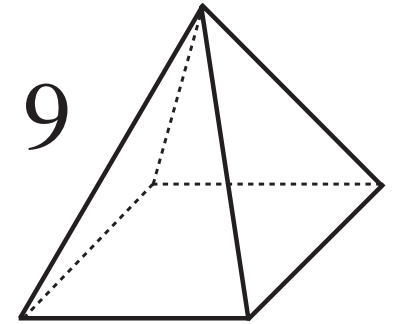
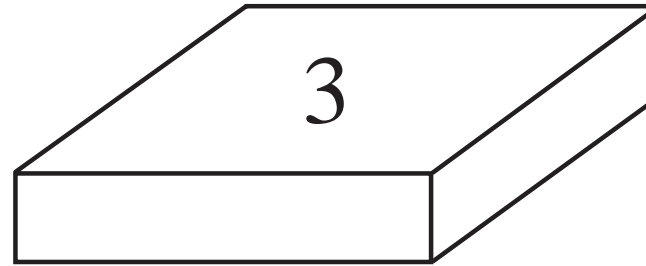
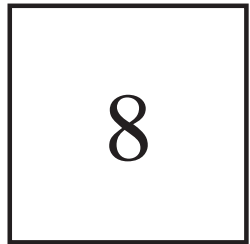
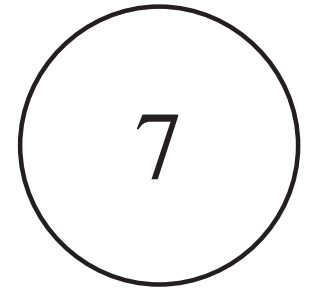
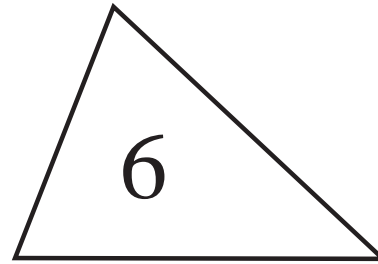
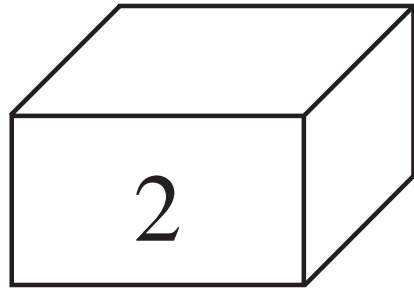


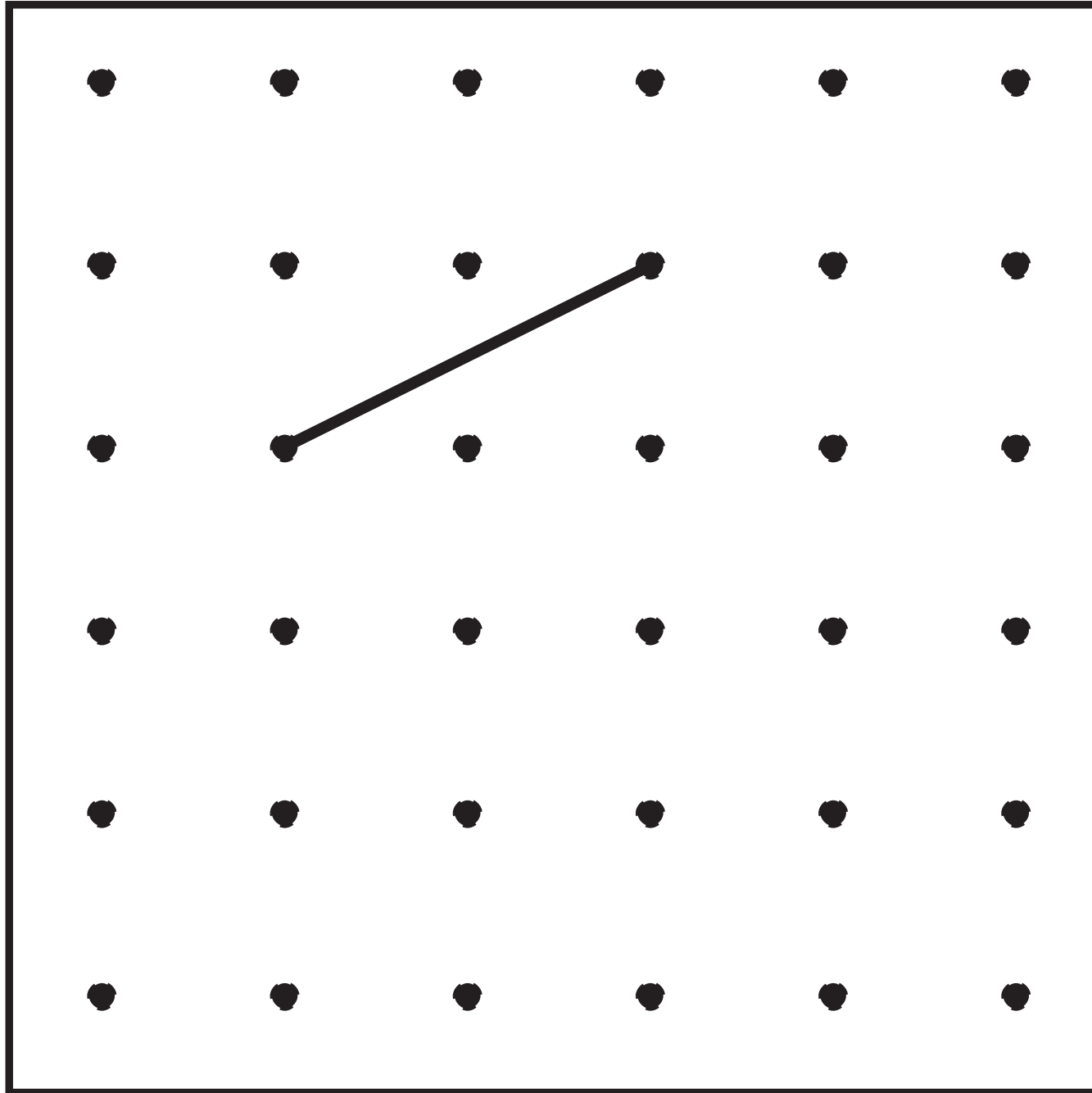
Car Park Charges

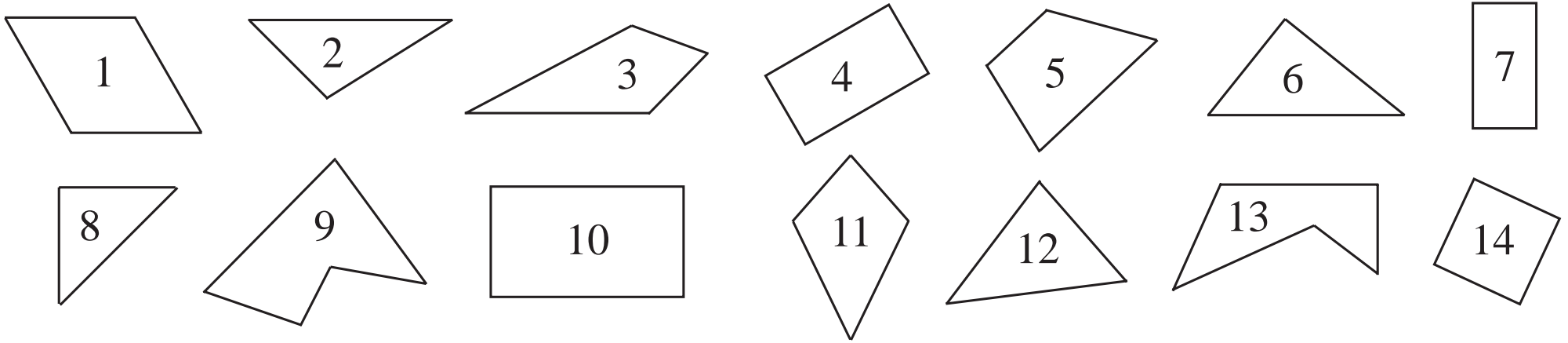
Time	Charge
Up to 1 hour	20 p
1 to 2 hours	50 p
2 to 3 hours	£1.00
3 to 4 hours	£1.70
Over 4 hours	£5.00











Triangles

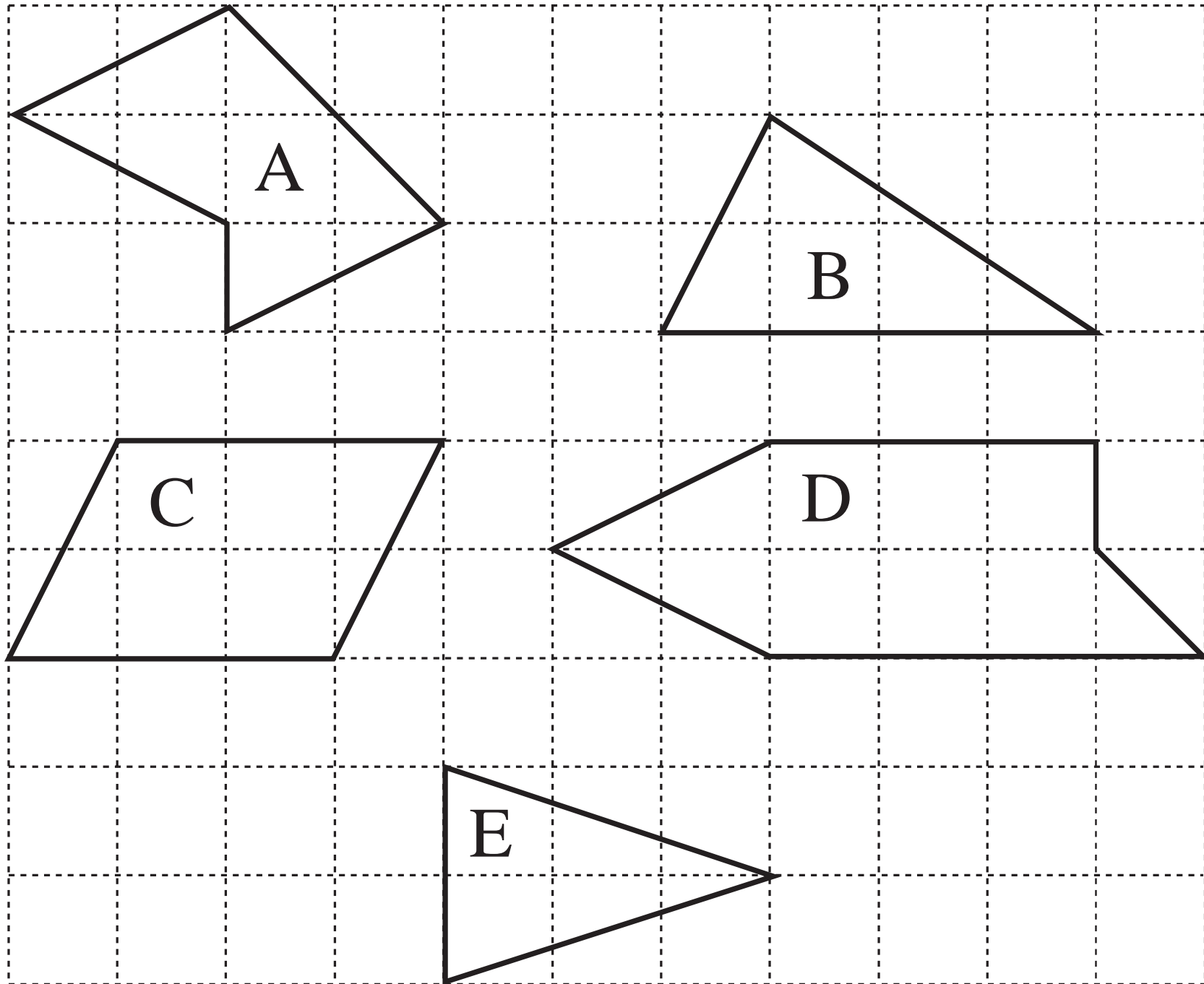
Quadrilaterals

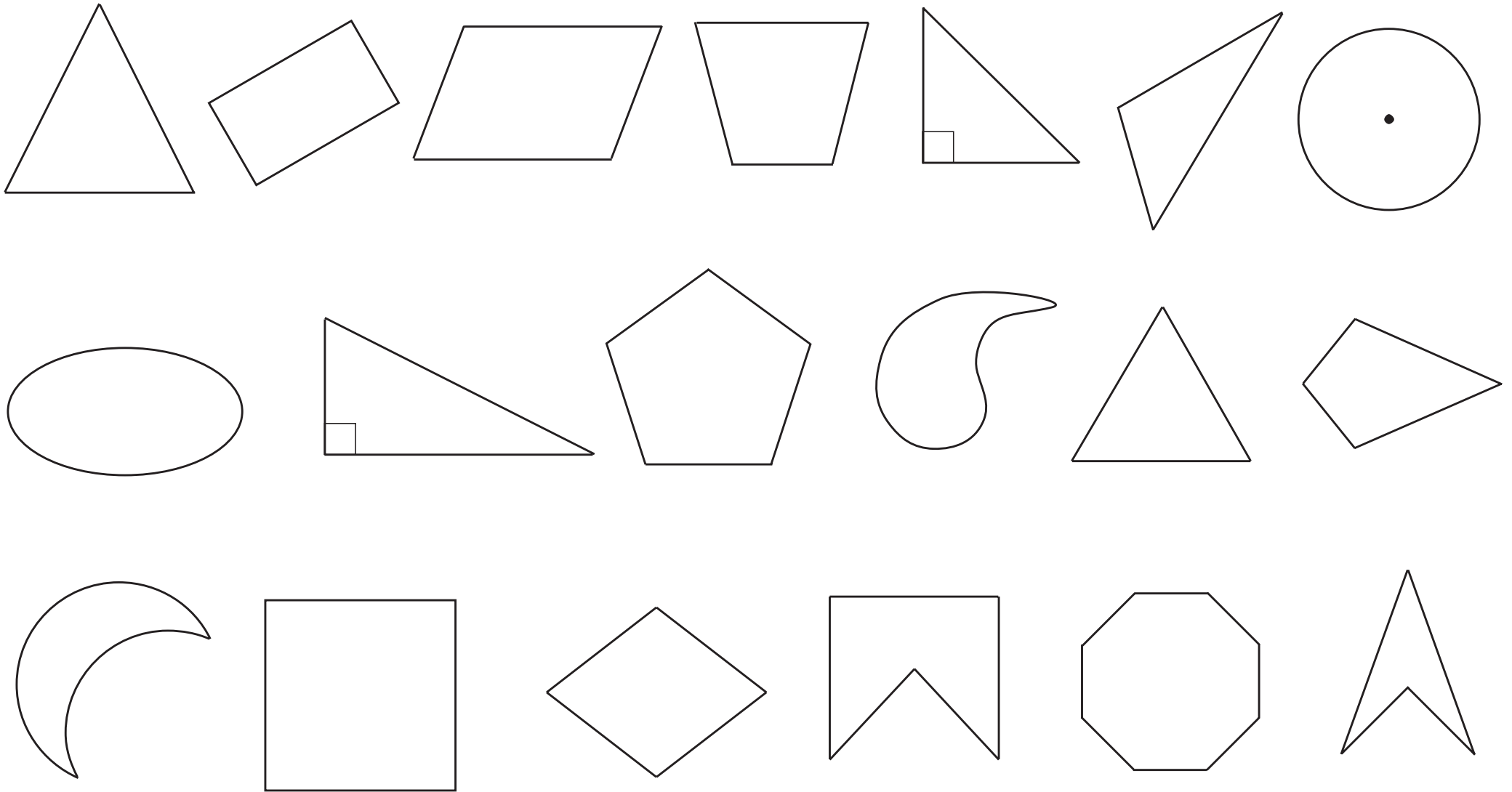
Has at least 1 right angle

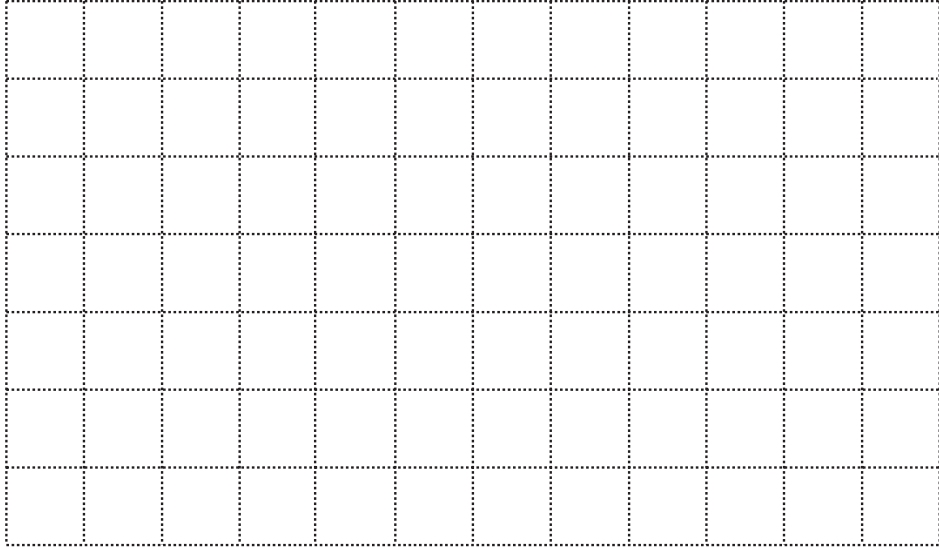
- a) All rectangles are quadrilaterals.
- b) All quadrilaterals are rectangles.
- c) Every quadrilateral is a rectangle but not every rectangle is a quadrilateral.
- d) The diagonals of a rectangle are equal in length.
- e) The adjacent sides of any rectangle are equal to each other.
- f) The opposite sides of any rectangle are equal and parallel to each other.
- g) Every trapezium has only 1 pair of parallel sides.
- h) Every quadrilateral which has parallel sides is a trapezium.
- i) All quadrilaterals with equal angles are rectangles.
- j) There is a trapezium with equal sides which is not a rhombus.

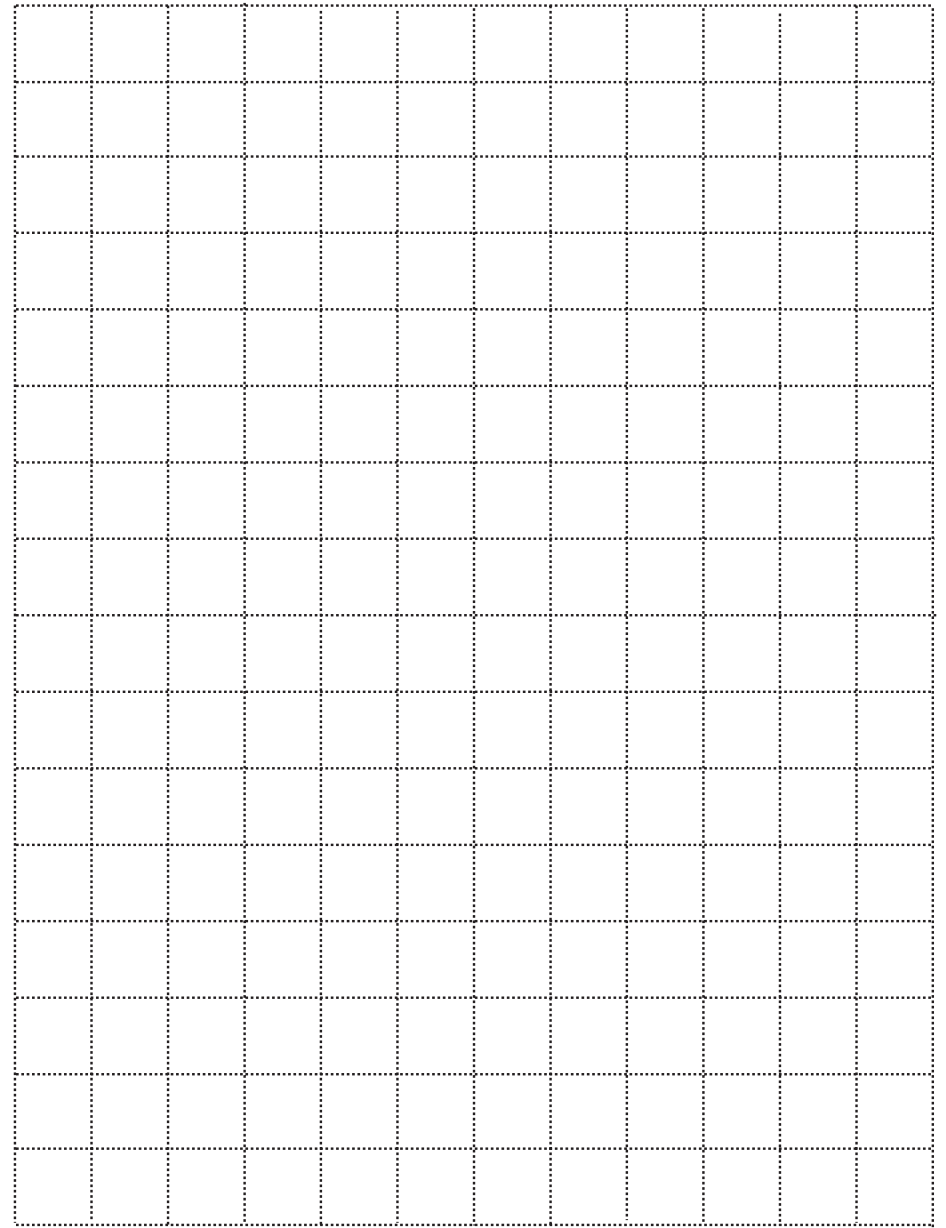
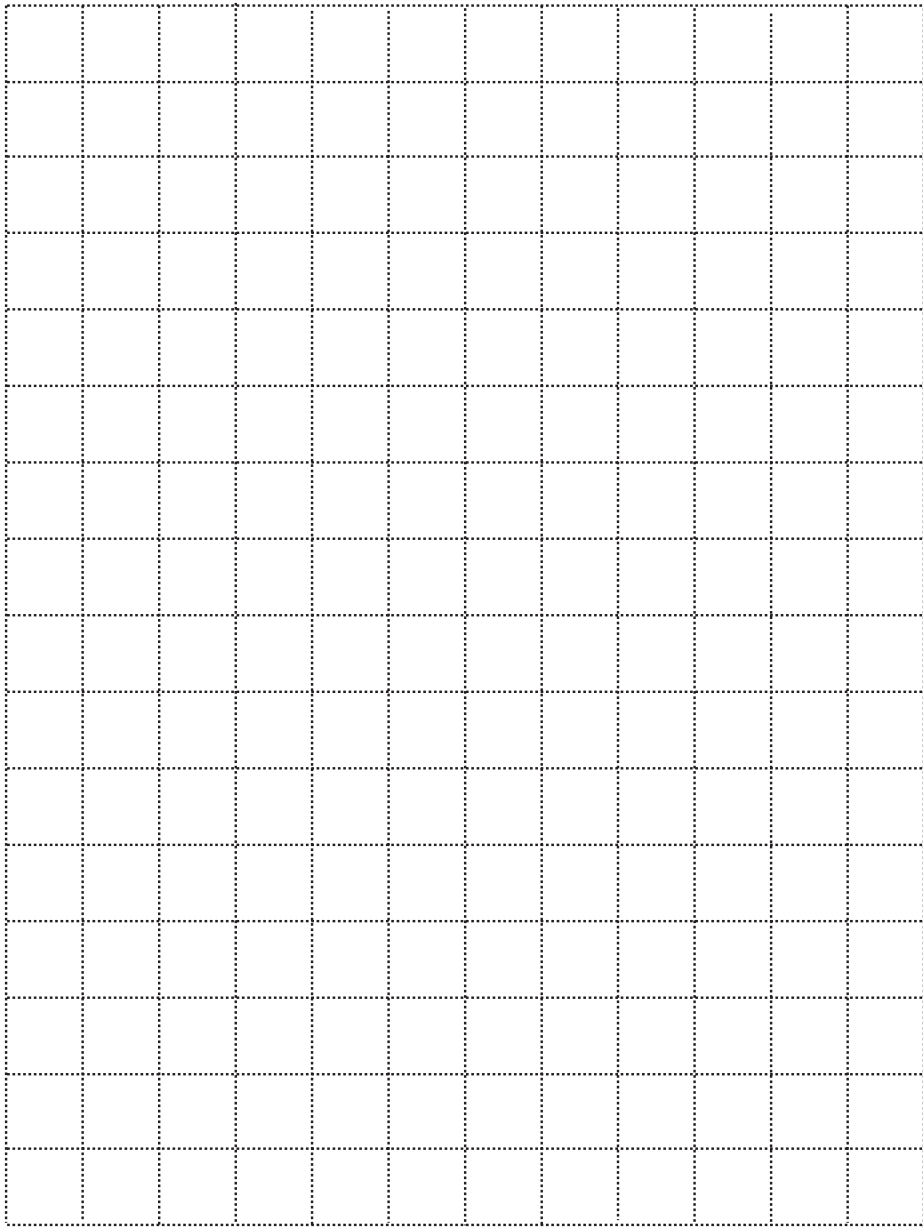
True:

False:

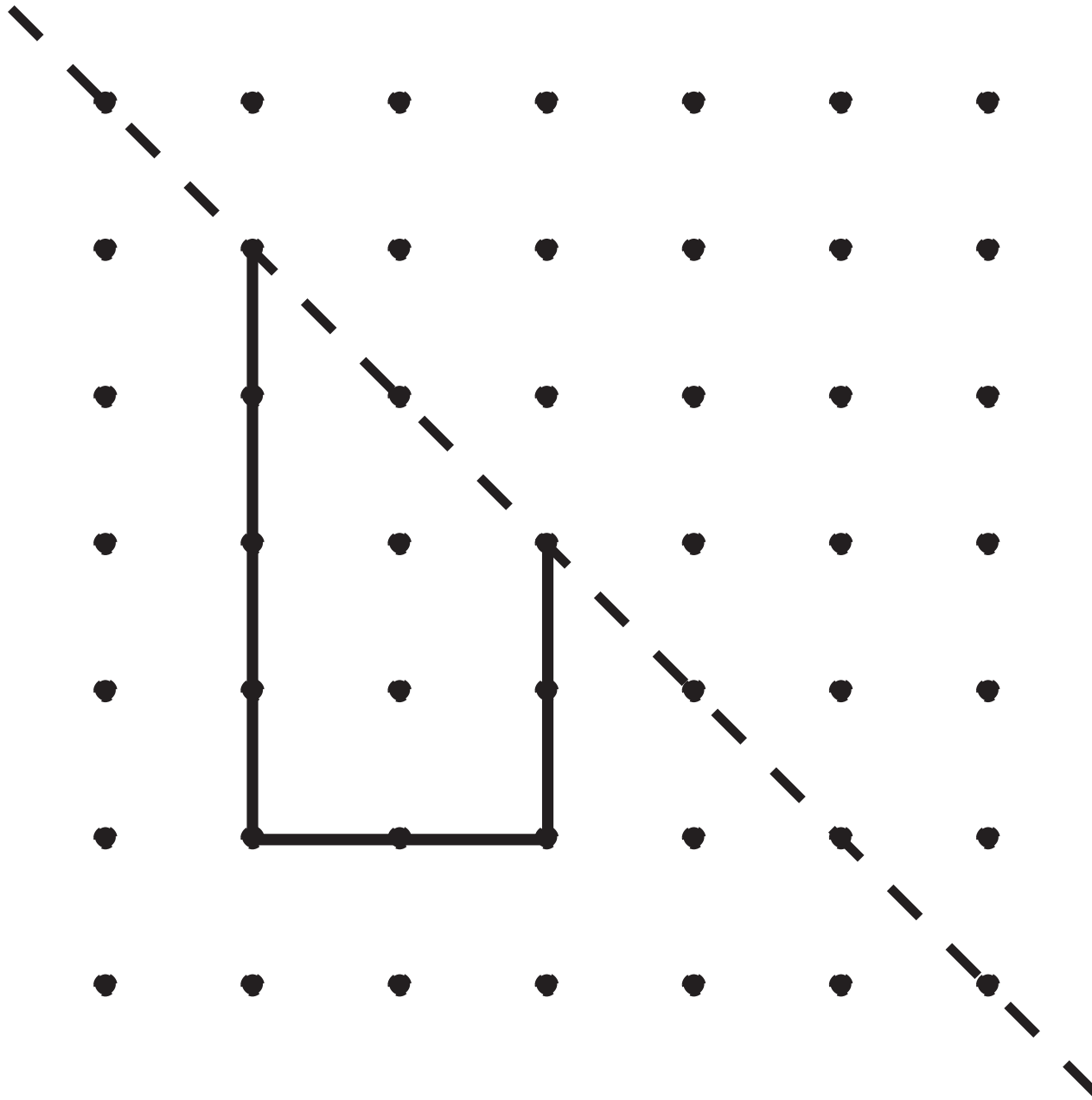




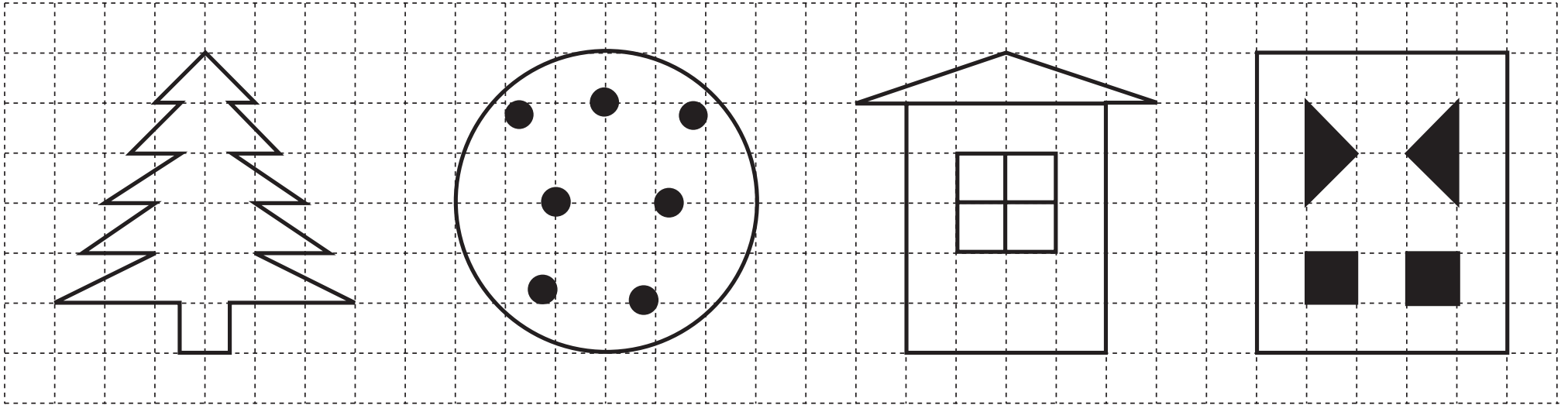




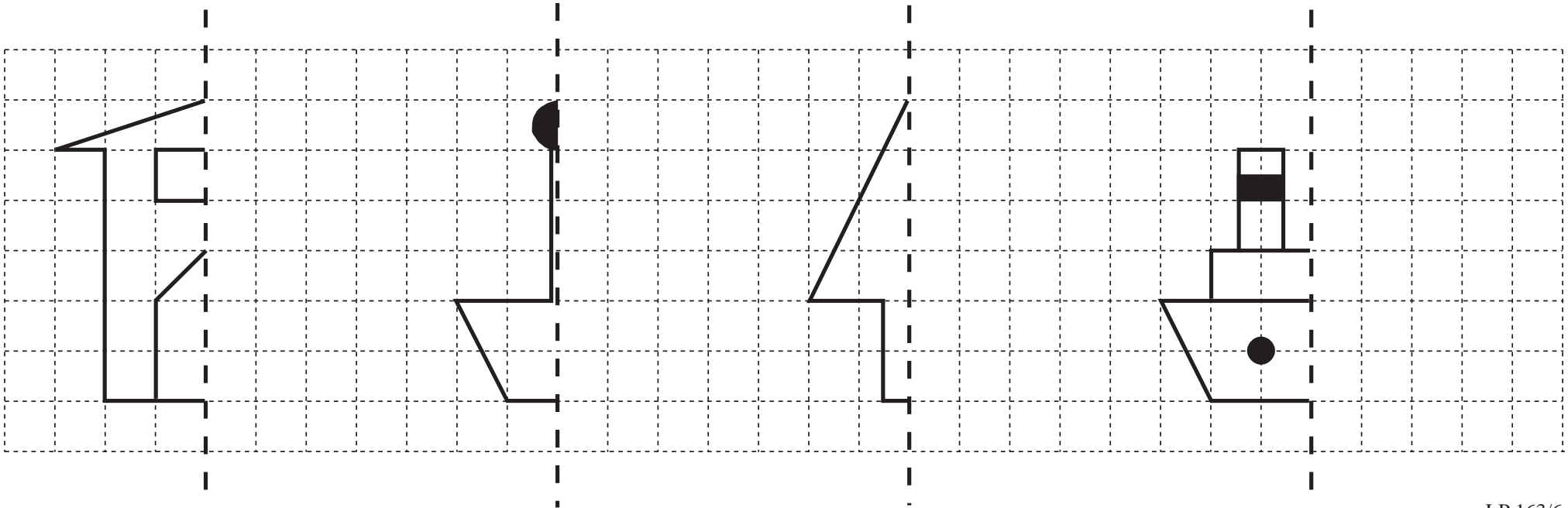
1 grid per pupil



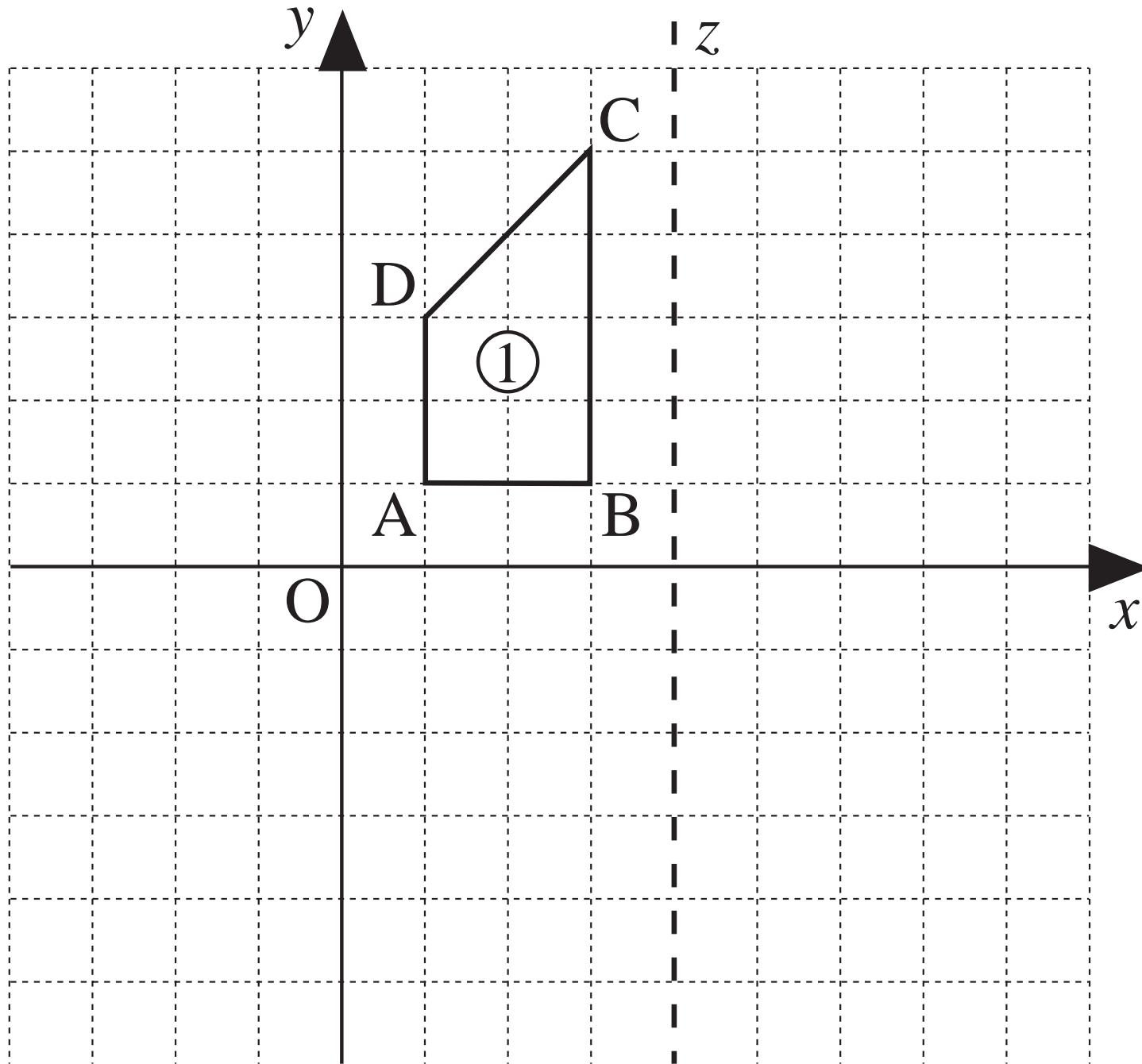
mirror line



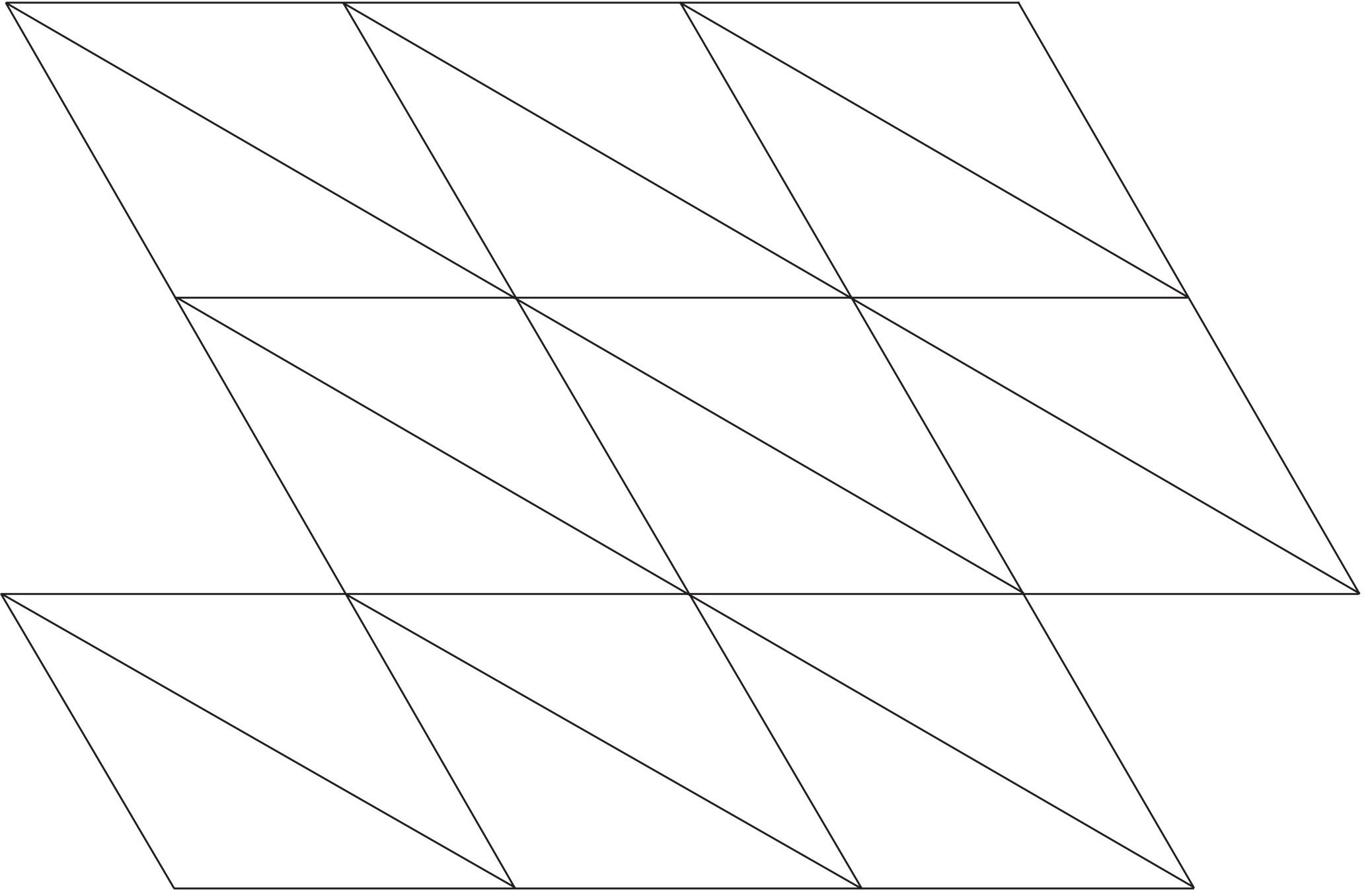
LP 163/5

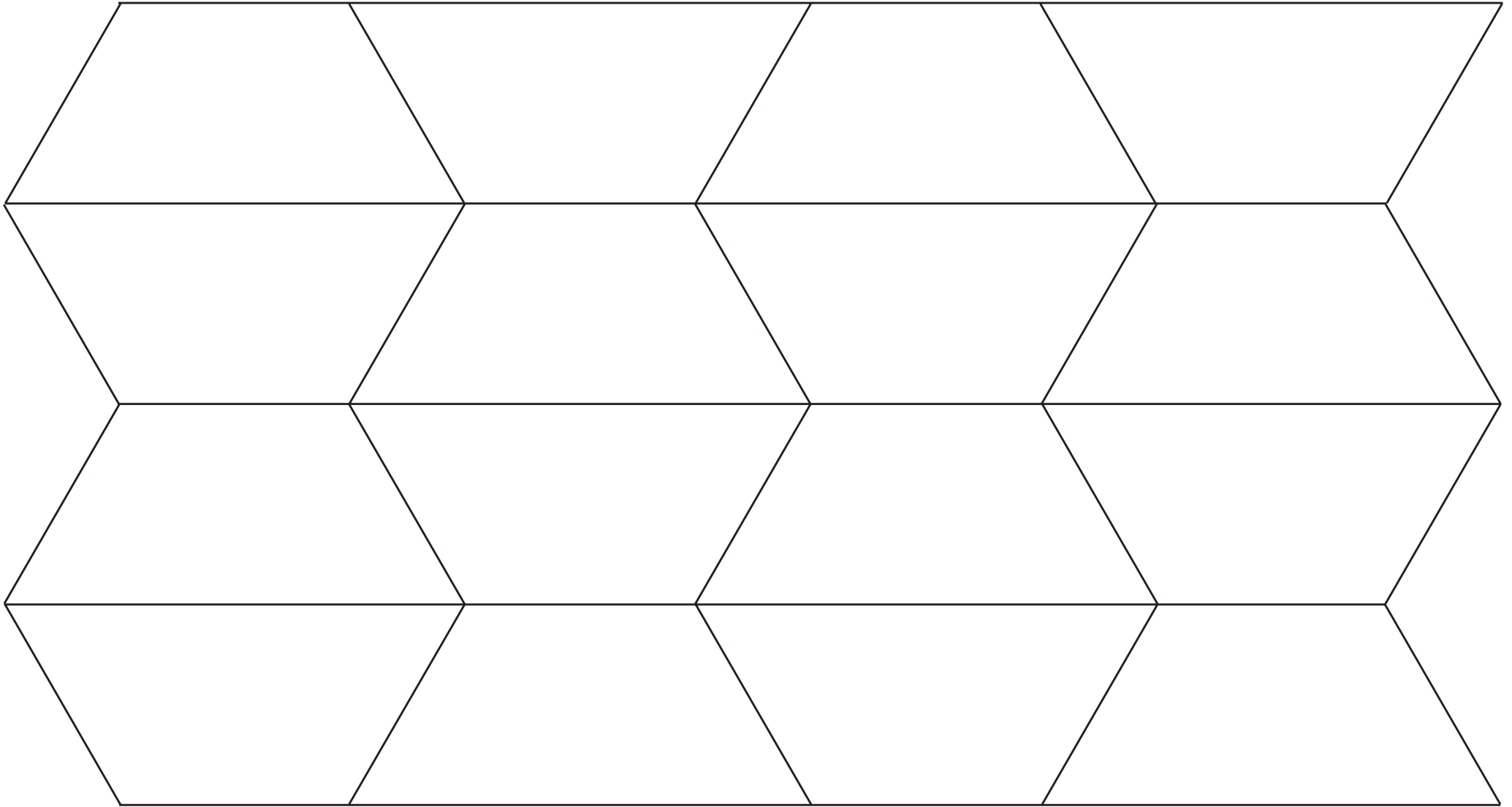


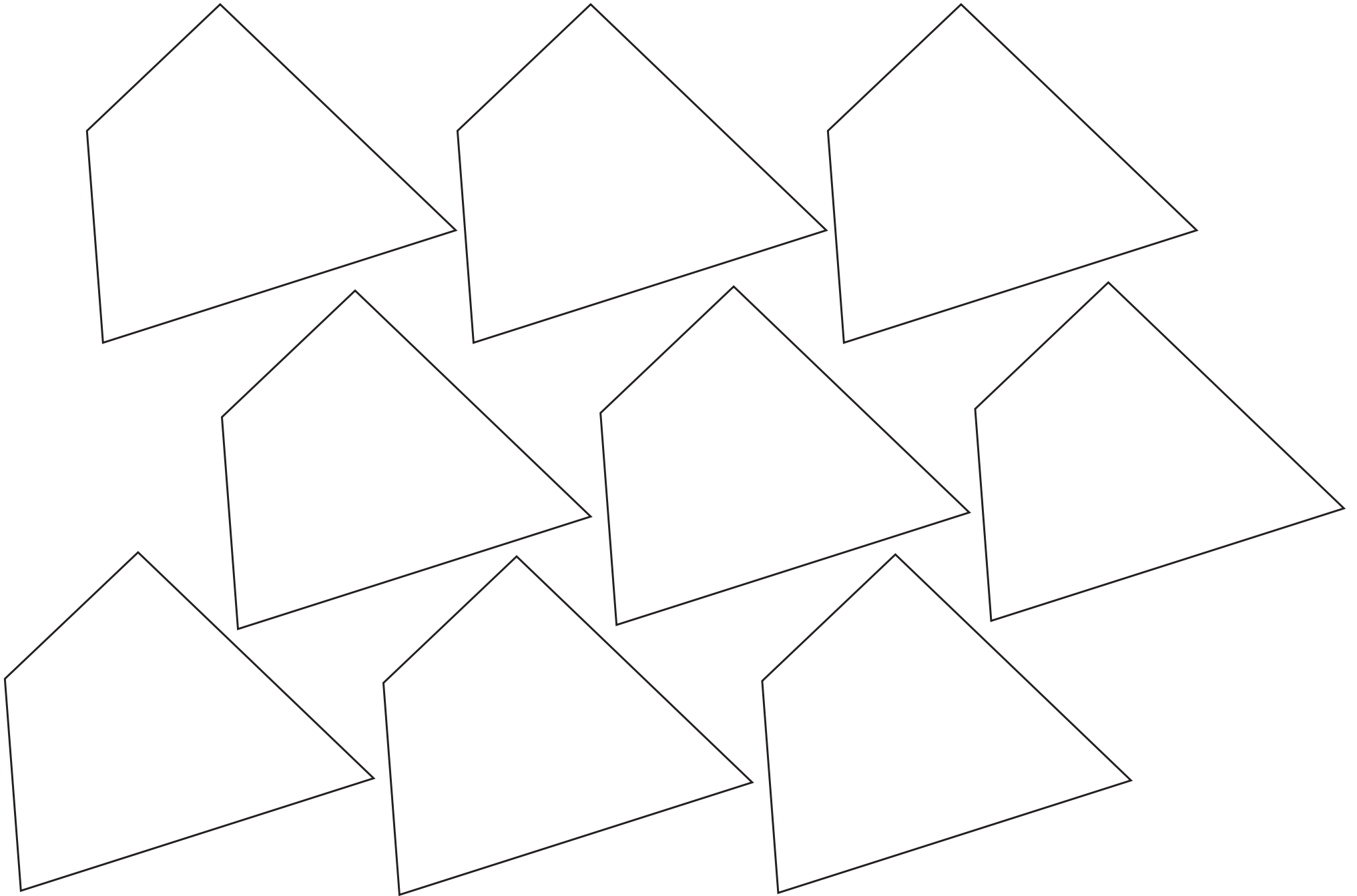
LP 163/6



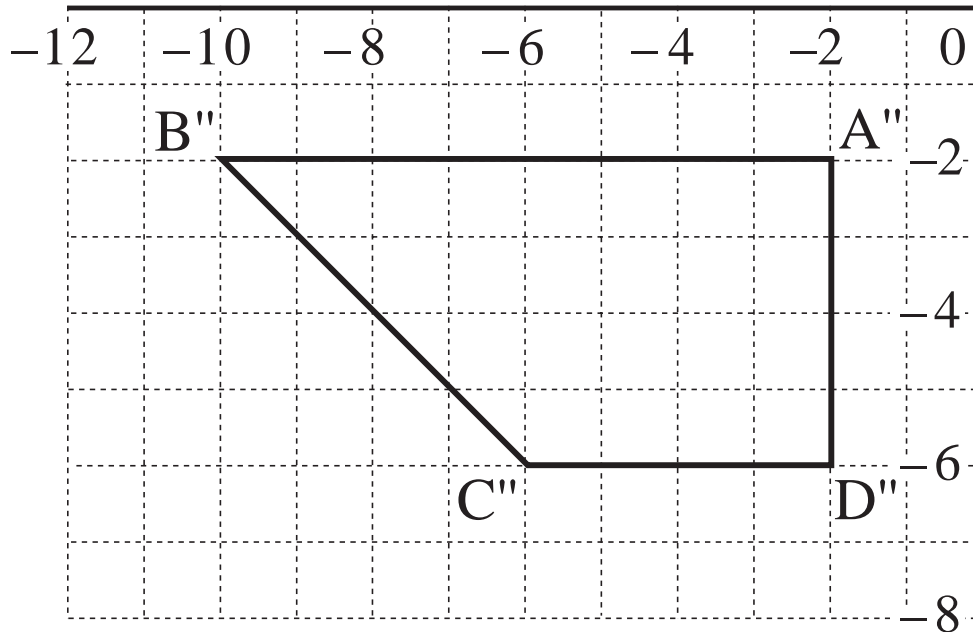
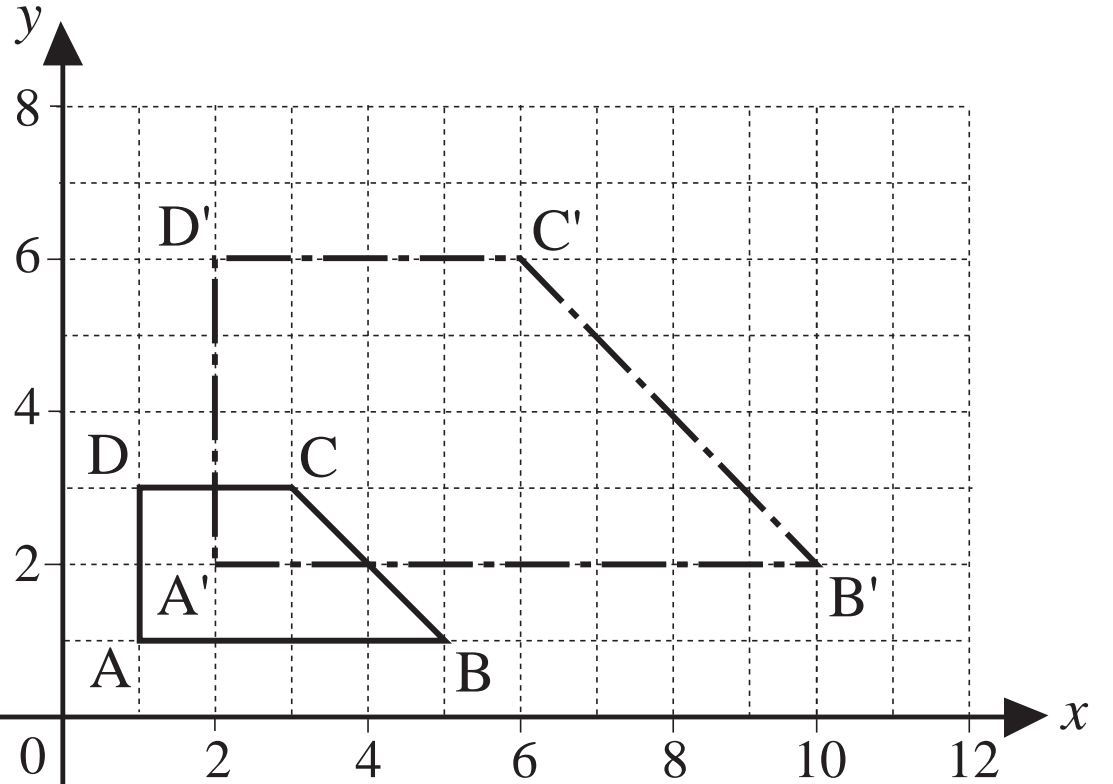




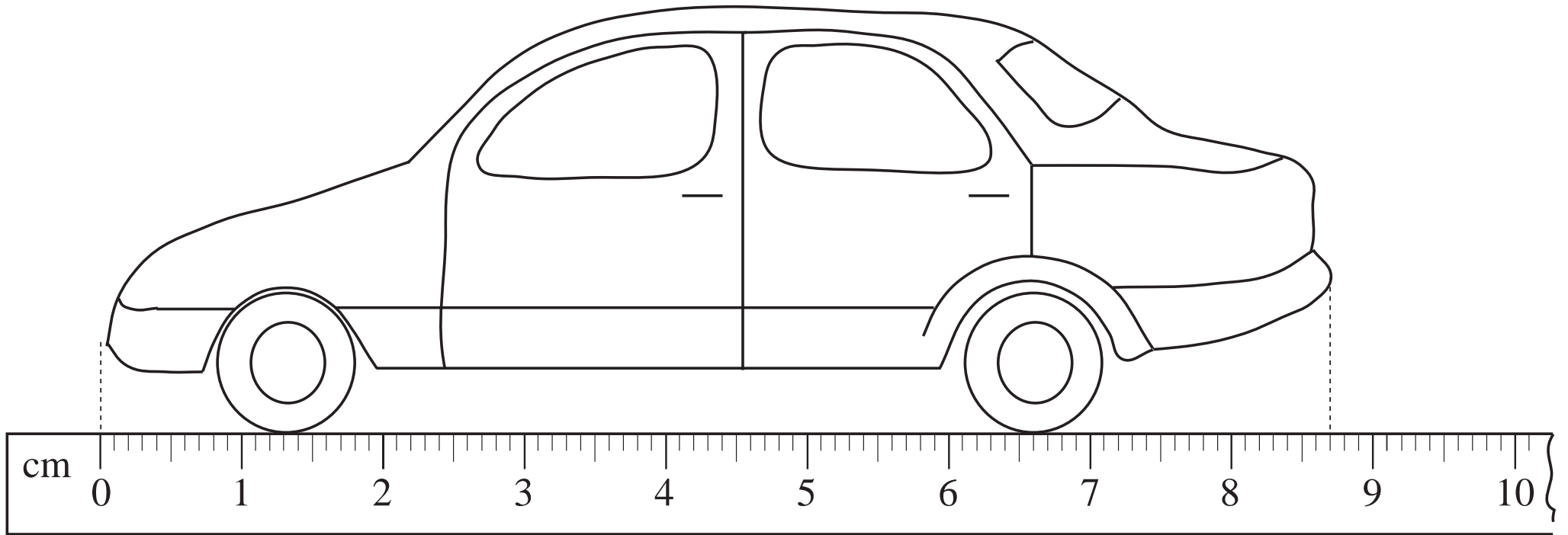


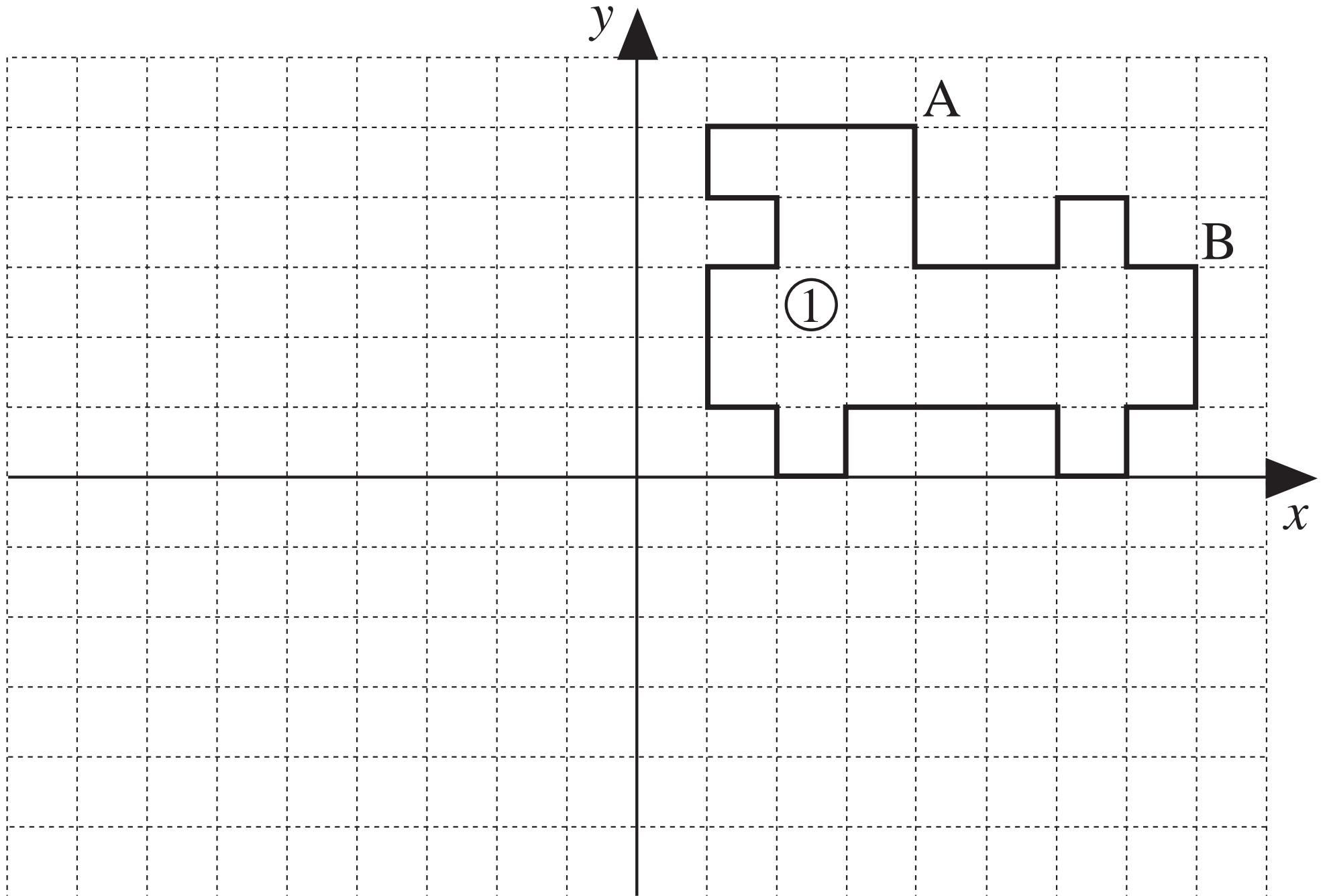


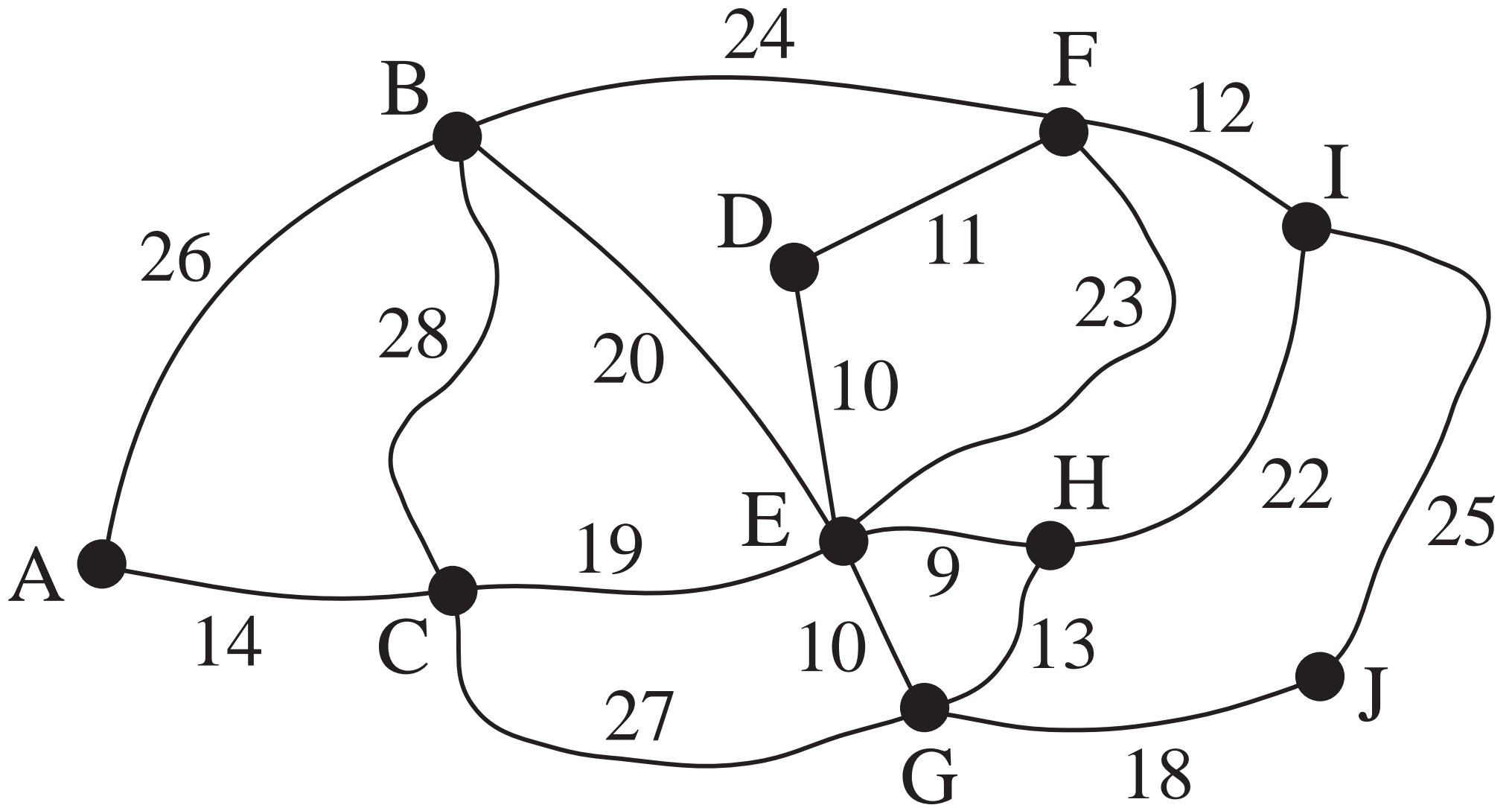
A (1 , 1)	A' (2 ,)
B (5 ,)	B' (10 ,)
C (, 3)	C' (, 6)
D (,)	D' (,)

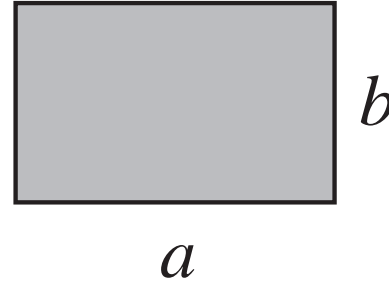
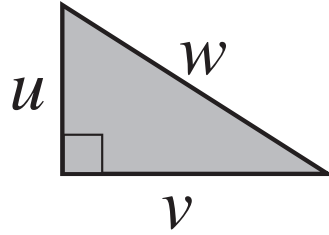
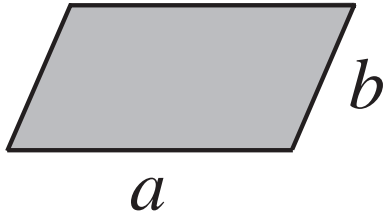


A'' (-2, -2)
B'' (, -2)
C'' (-6,)
D'' (,)









$$P = u + v + w$$

$$P = 2 \times a + 2 \times b$$

$$A = \frac{e \times e}{2}$$

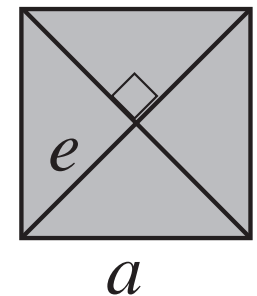
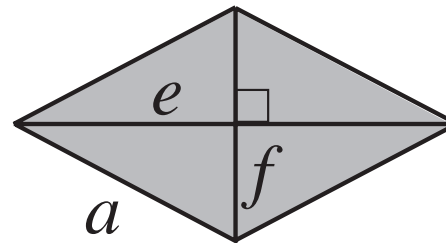
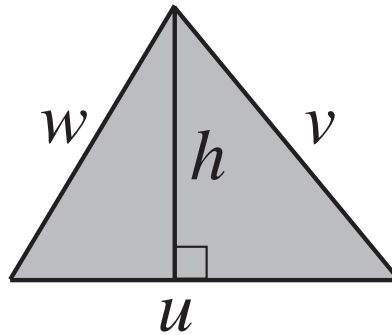
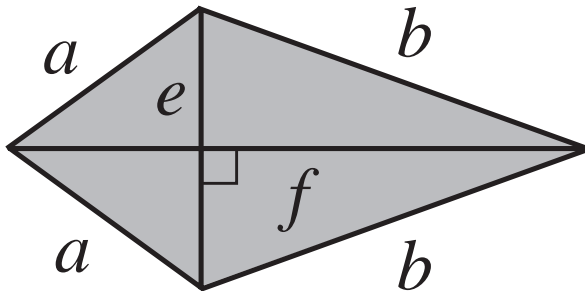
$$A = a \times b$$

$$A = \frac{e \times f}{2}$$

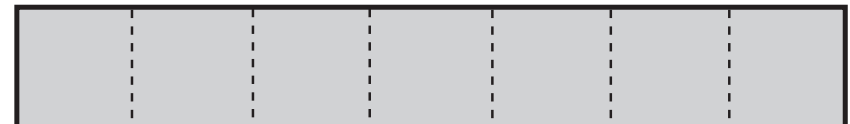
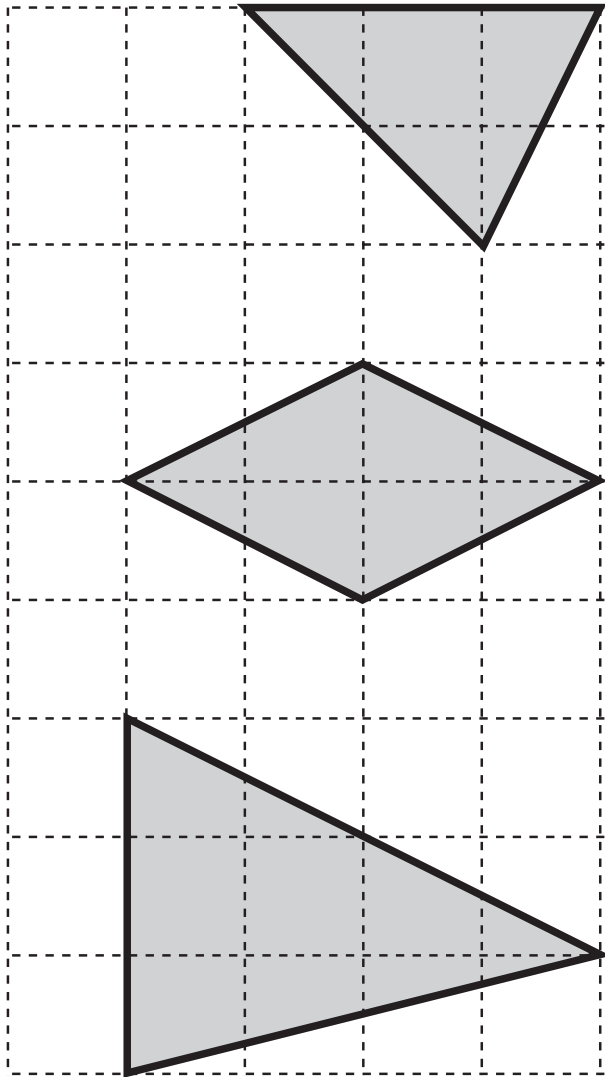
$$P = 4 \times a$$

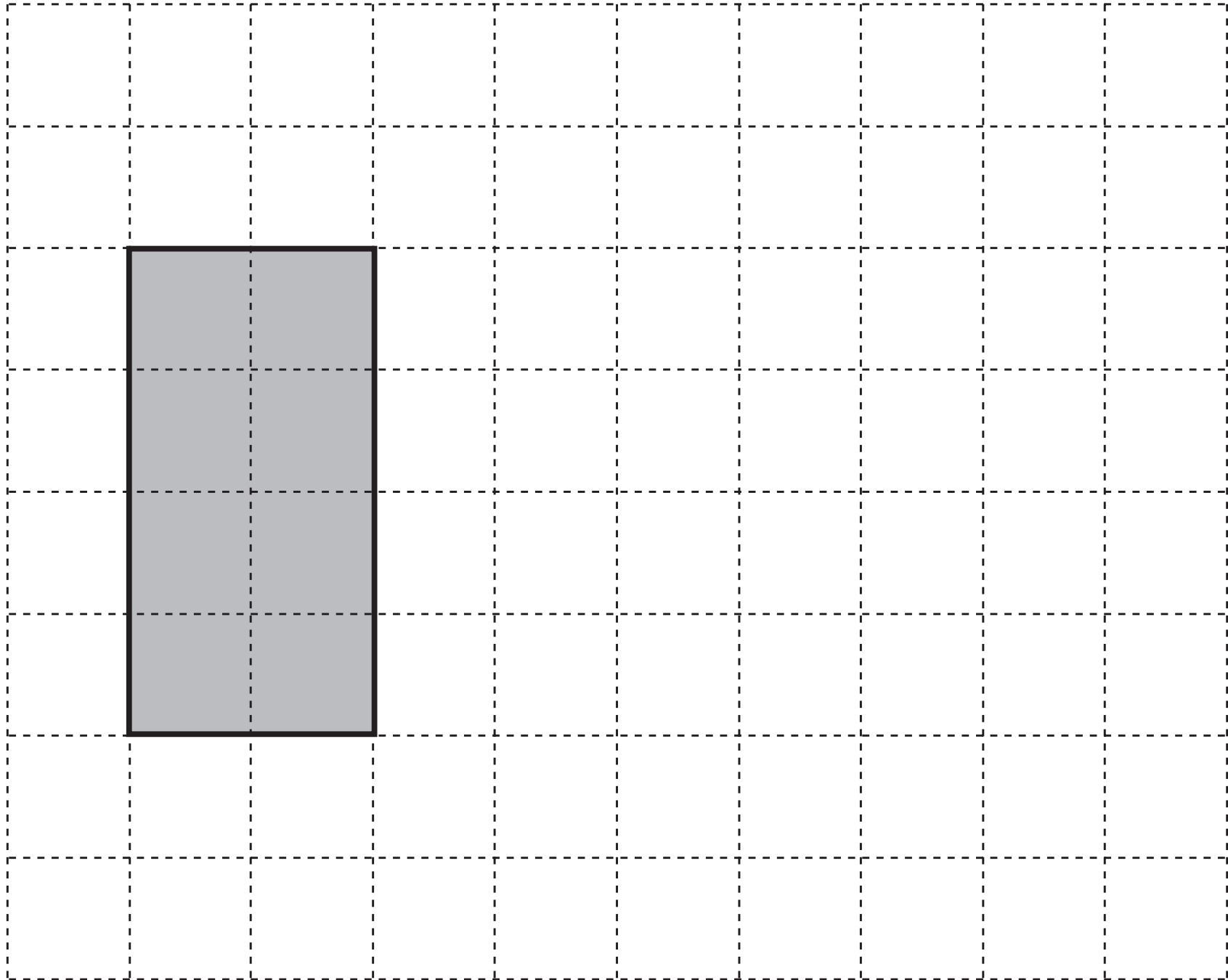
$$A = \frac{u \times h}{2}$$

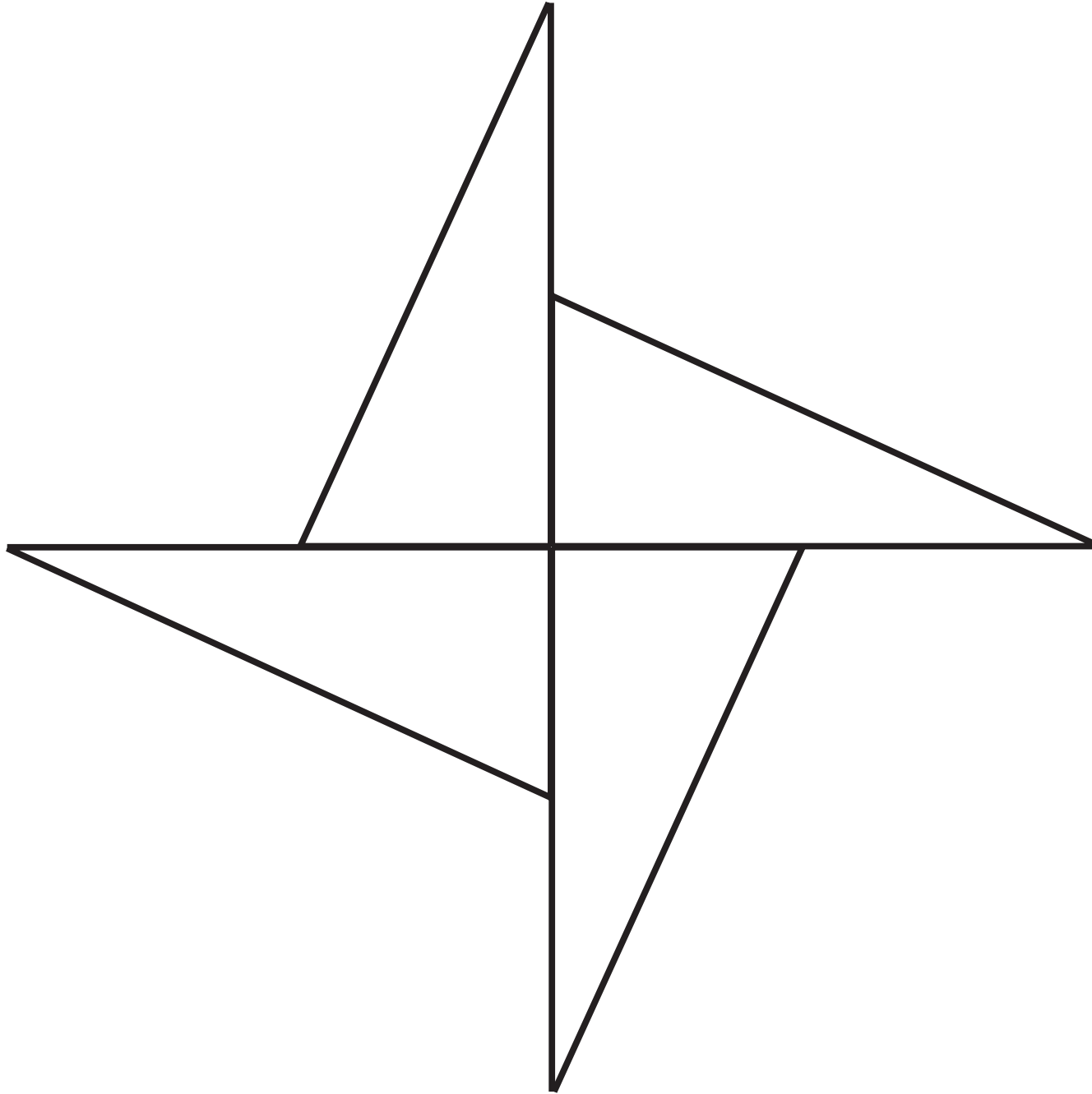
$$A = \frac{u \times v}{2}$$

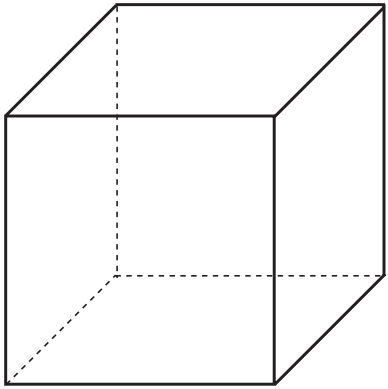


$$A = a \times a$$

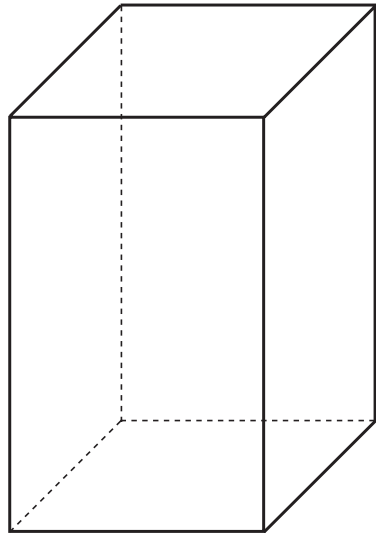




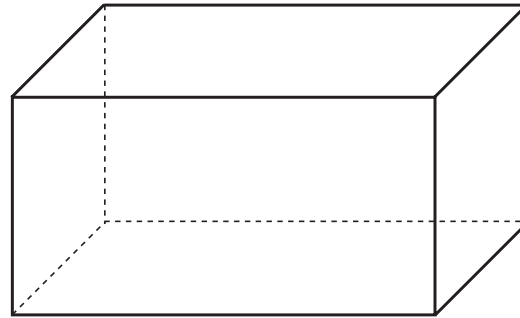




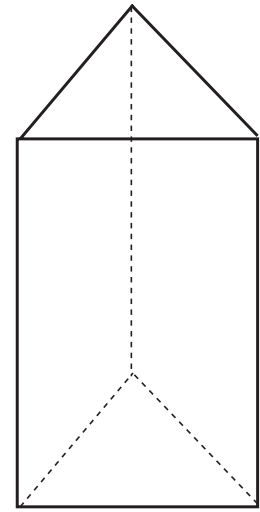
1



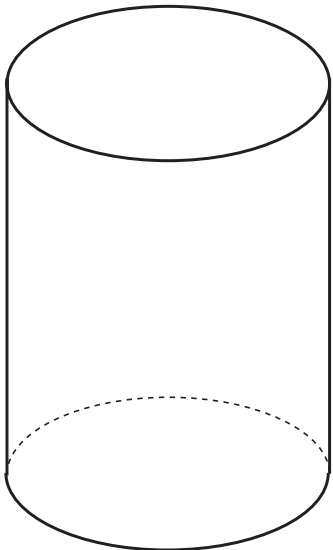
2



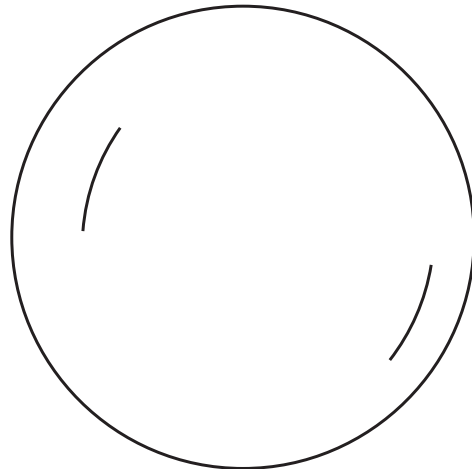
3



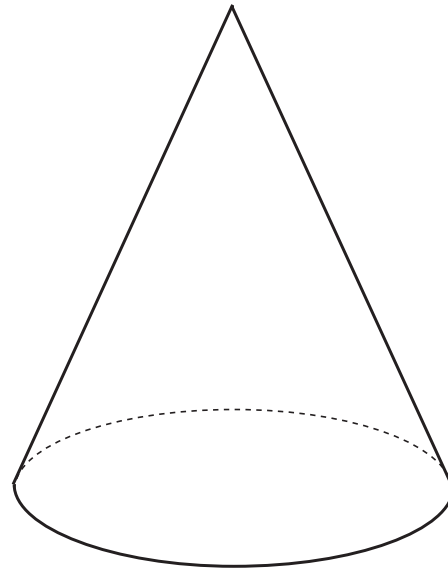
4



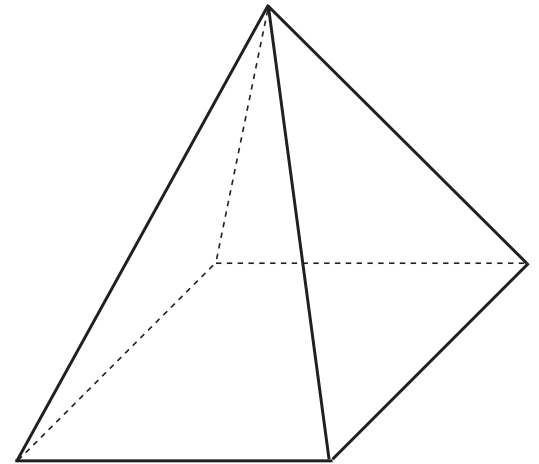
5



6



7



8

Polyhedra

①

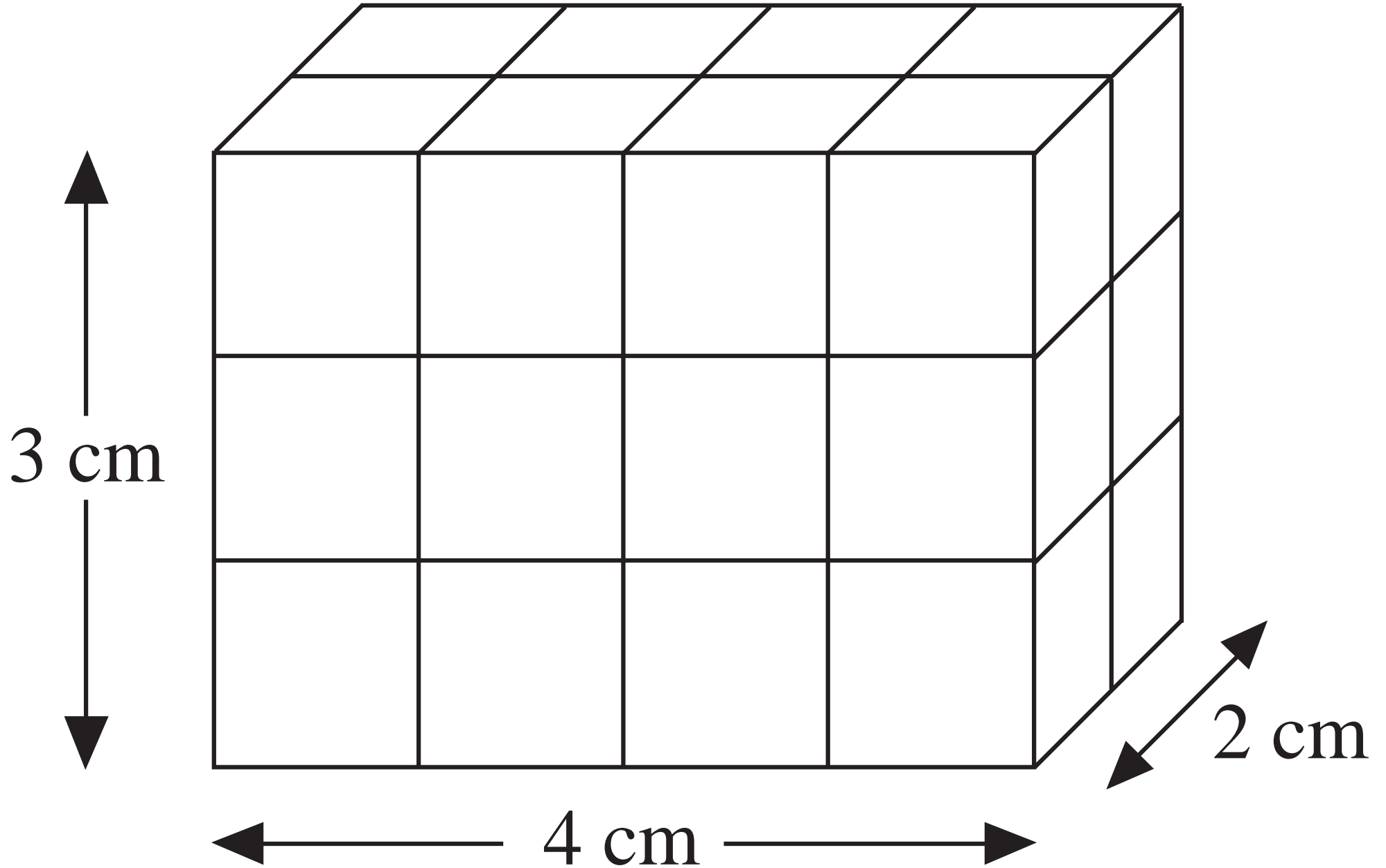
②

③

④

⑧

Faces					
Vertices					
Edges					





a)

e	7	-2.8	$\frac{3}{4}$	0.81		$-10\frac{1}{10}$	
f	-14	5.6	$-\frac{3}{2}$		6326		$-\frac{5}{7}$

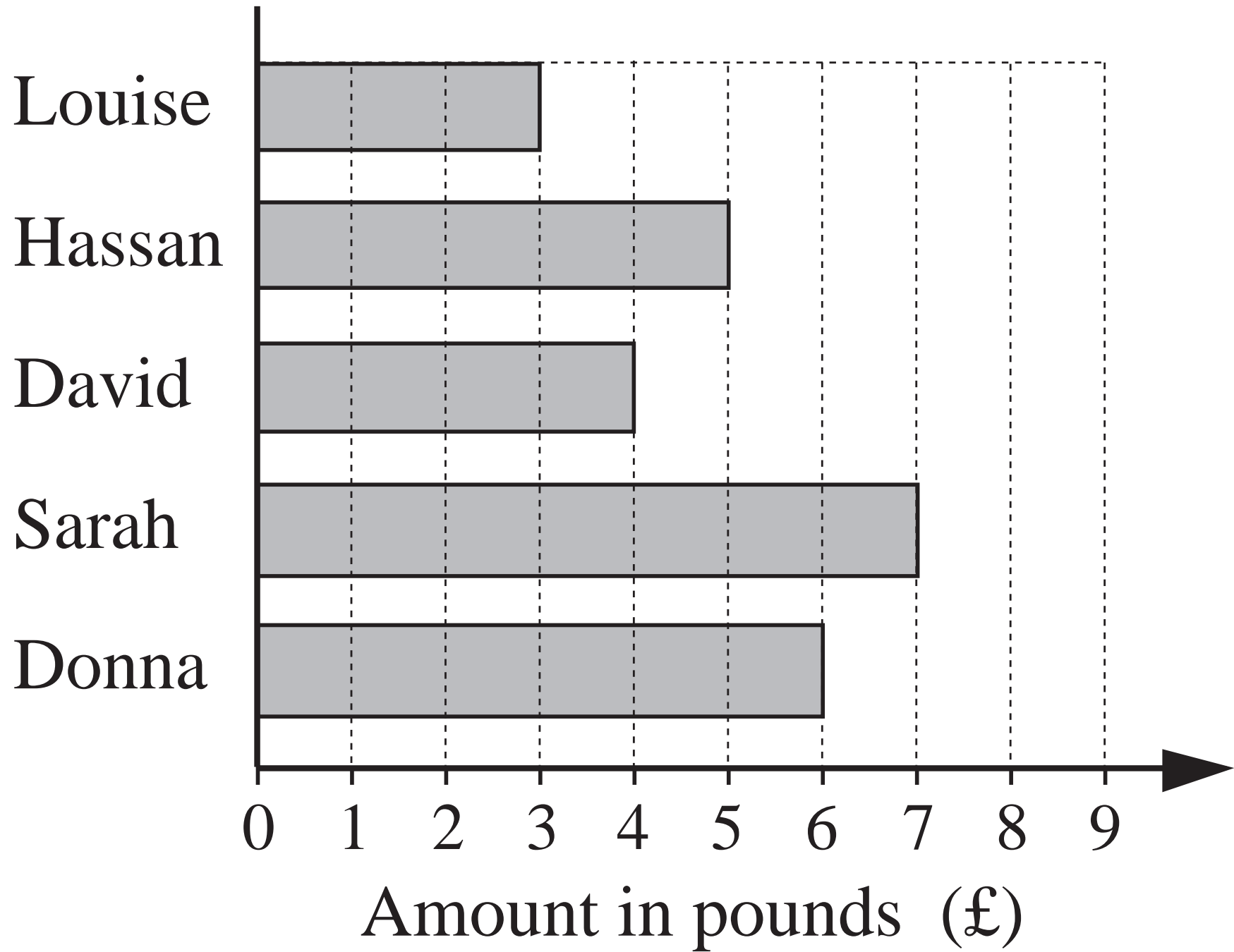
b)

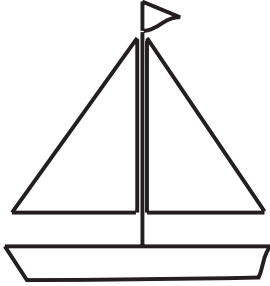
u	1	10	6	100	2		-2		3.3	0
v	2	29	17	299		8		44		

c)

x	0	1	2	3	8	4	5		7			11
y	1	2	5	10	65				36		82	101

Mass	Cost in pence	
	First class	Second class
Up to 60 g	26	20
61 g to 100 g	39	31
101 g to 150 g	49	38
151 g to 200 g	60	45
201 g to 250 g	70	55



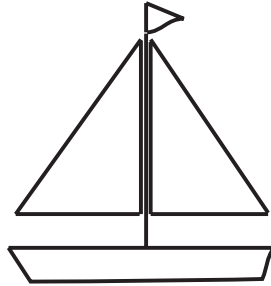


Lark

50 minute trip

Tickets

£2.75
each

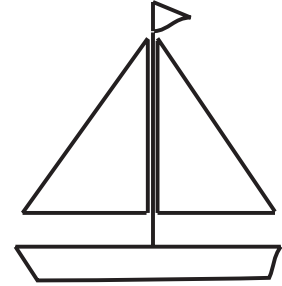


Heron

70 minute trip

Tickets

£3.50
each

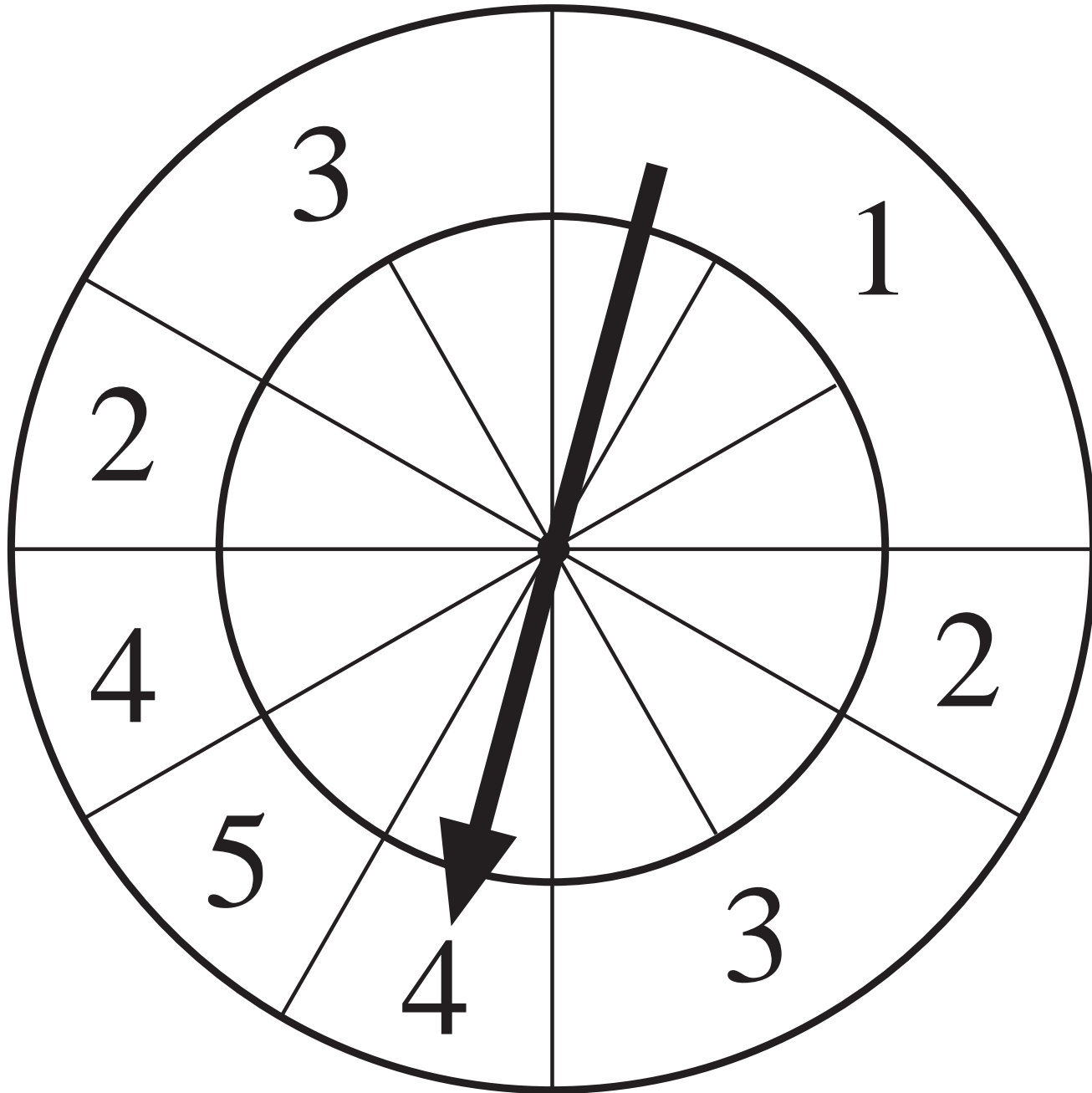


Kestrel

90 minute trip

Tickets

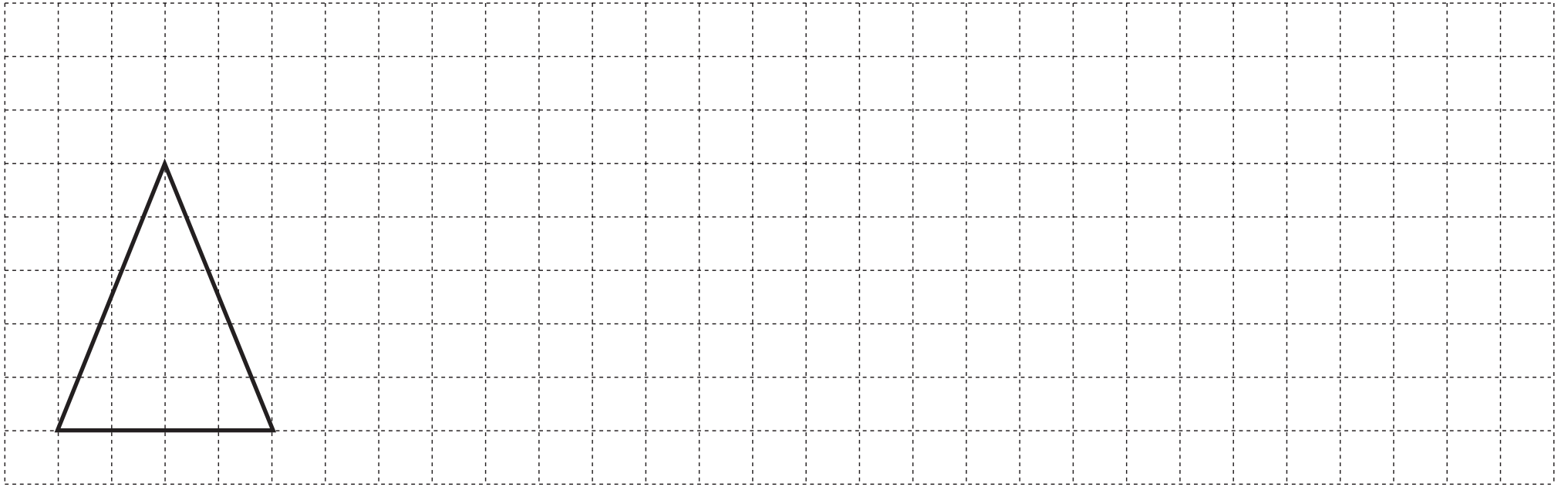
£4.20
each



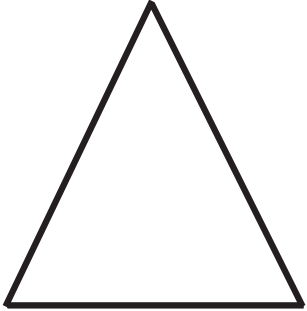
August 1998

Sun Mon Tue Wed Thu Fri Sat

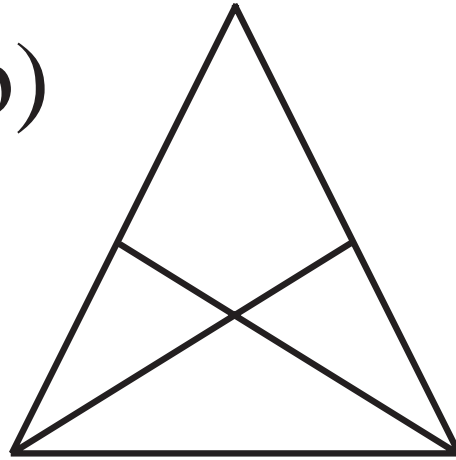
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



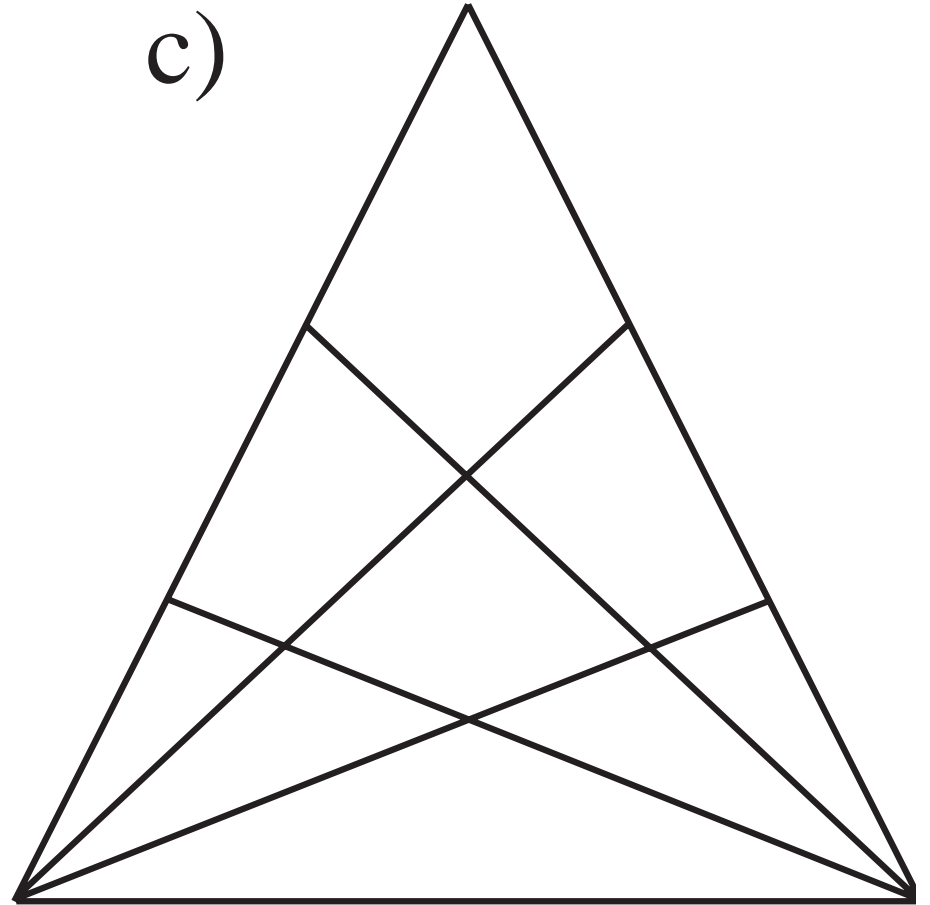
a)



b)



c)



a)

a	5	1.3	103	40	6		
b	2	2.4	76	25		$2\frac{1}{5}$	$\frac{1}{10}$
P	14	7.4	358		18	$6\frac{2}{5}$	$\frac{3}{5}$

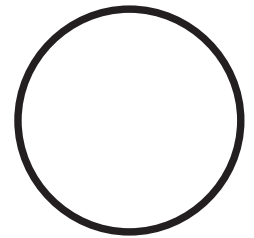
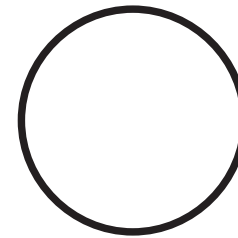
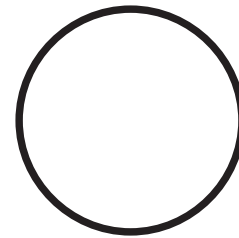
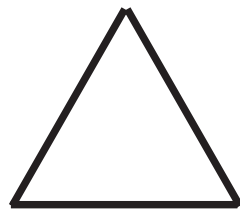
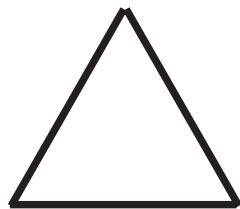
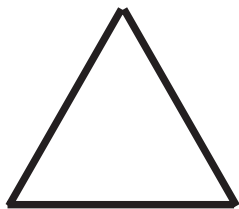
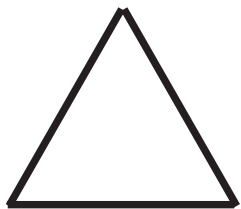
b)

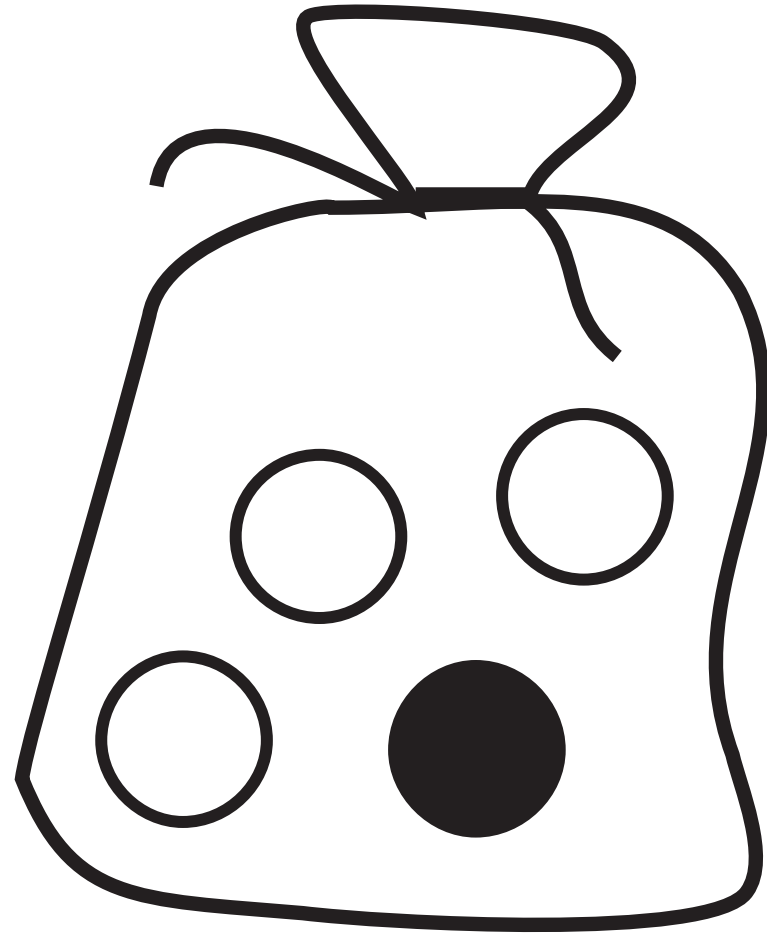
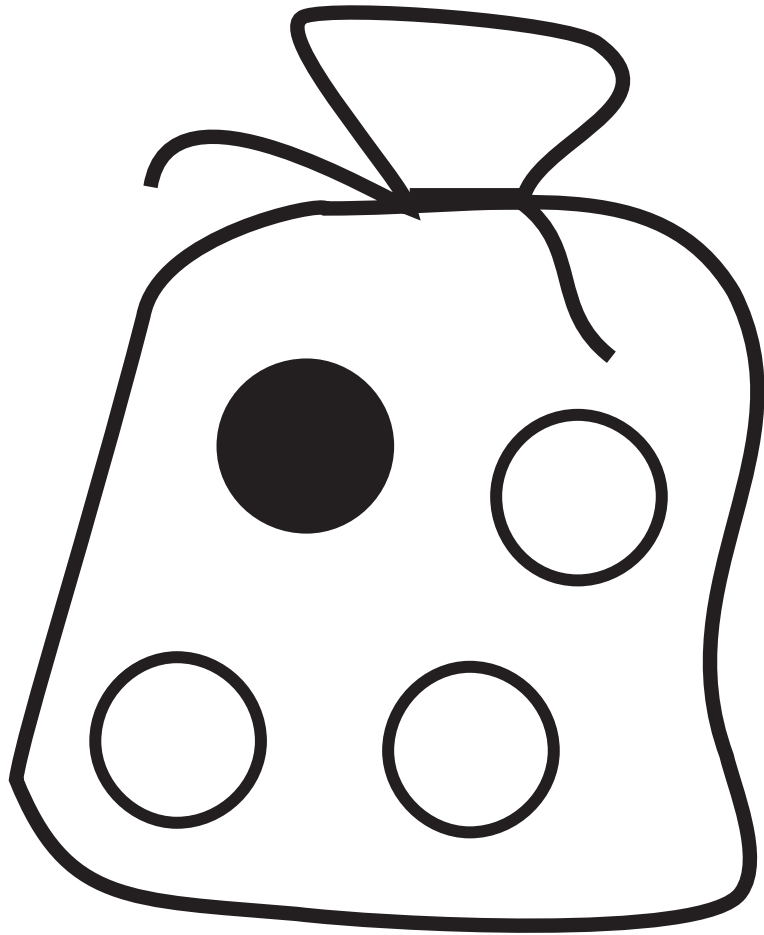
<i>e</i>	3	5.8	10	30	9		1.4
<i>f</i>	4	2	200	60		$4\frac{3}{4}$	5
<i>A</i>	6	5.8	1000		45	$4\frac{3}{4}$	

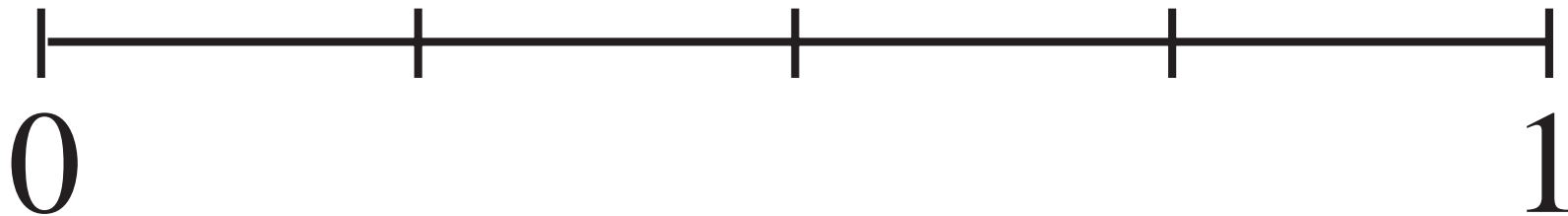
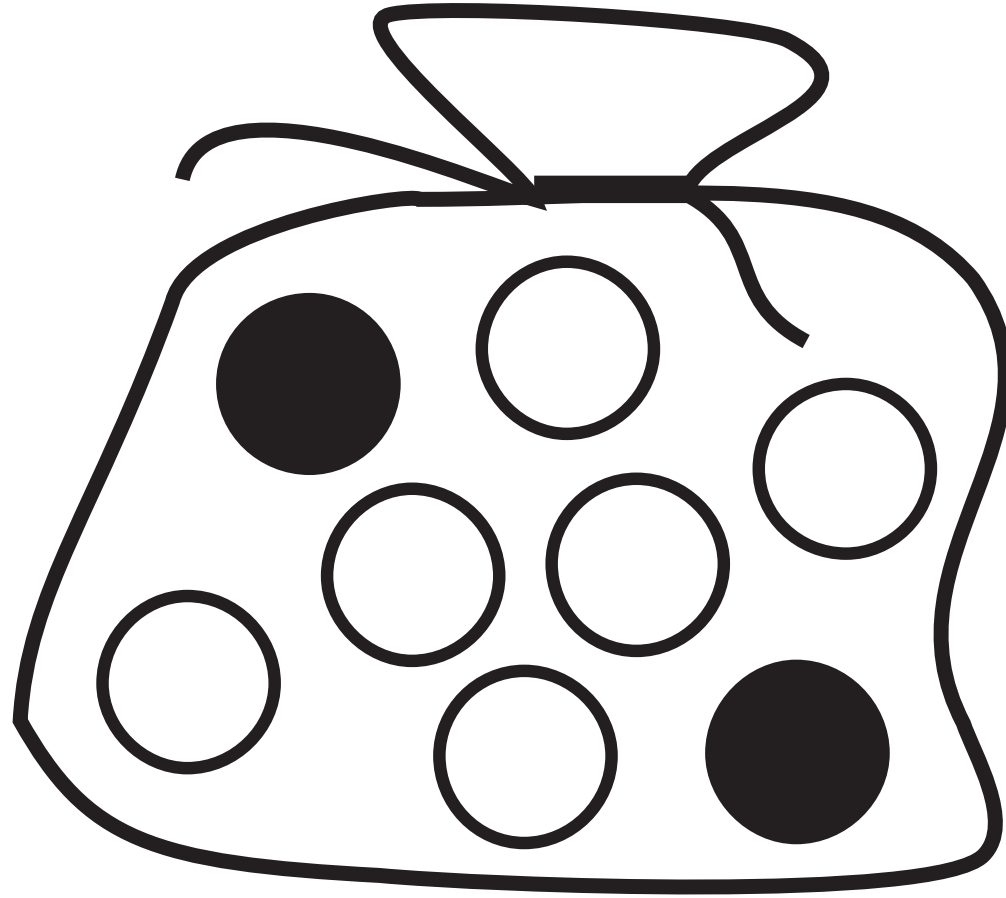
c)

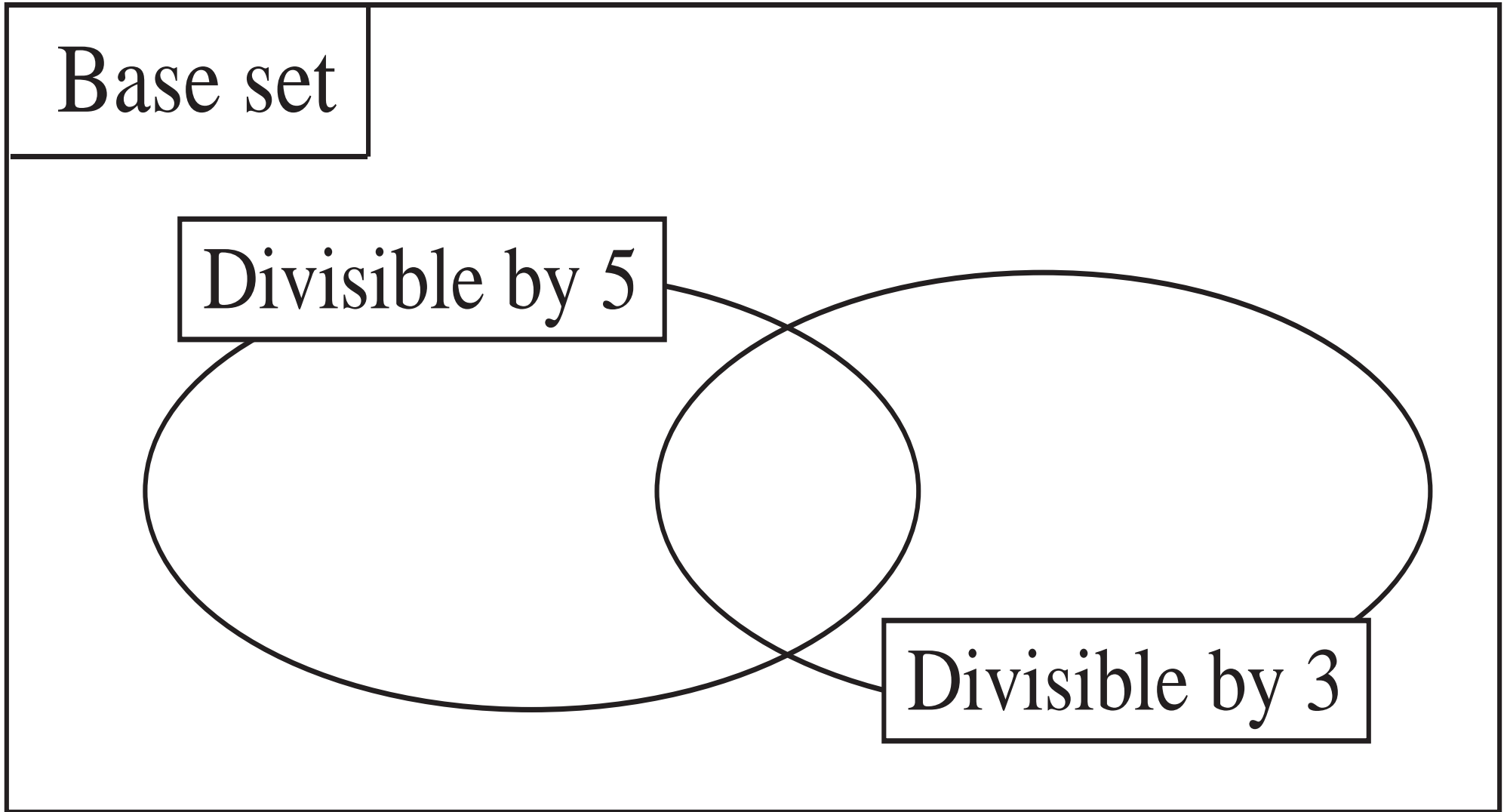
<i>e</i>	1	2	3	10	4		6		8	9	11
<i>A</i>	$\frac{1}{2}$	2	4.5	50		$12\frac{1}{2}$		24.5			

LP 171/2c

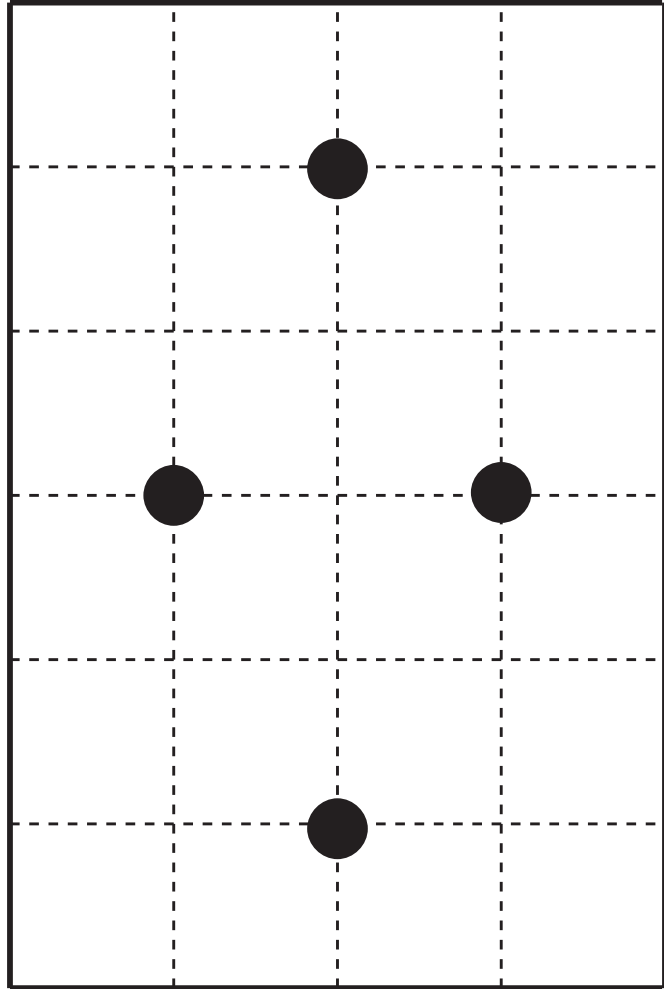




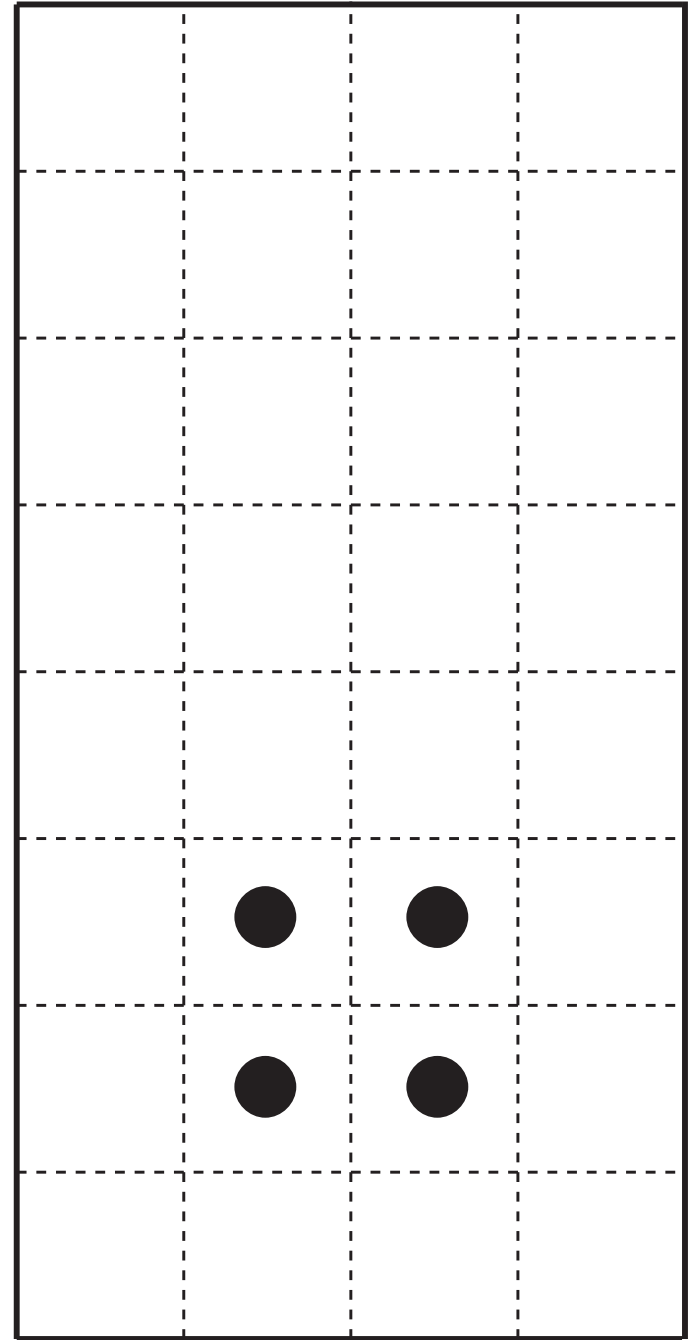


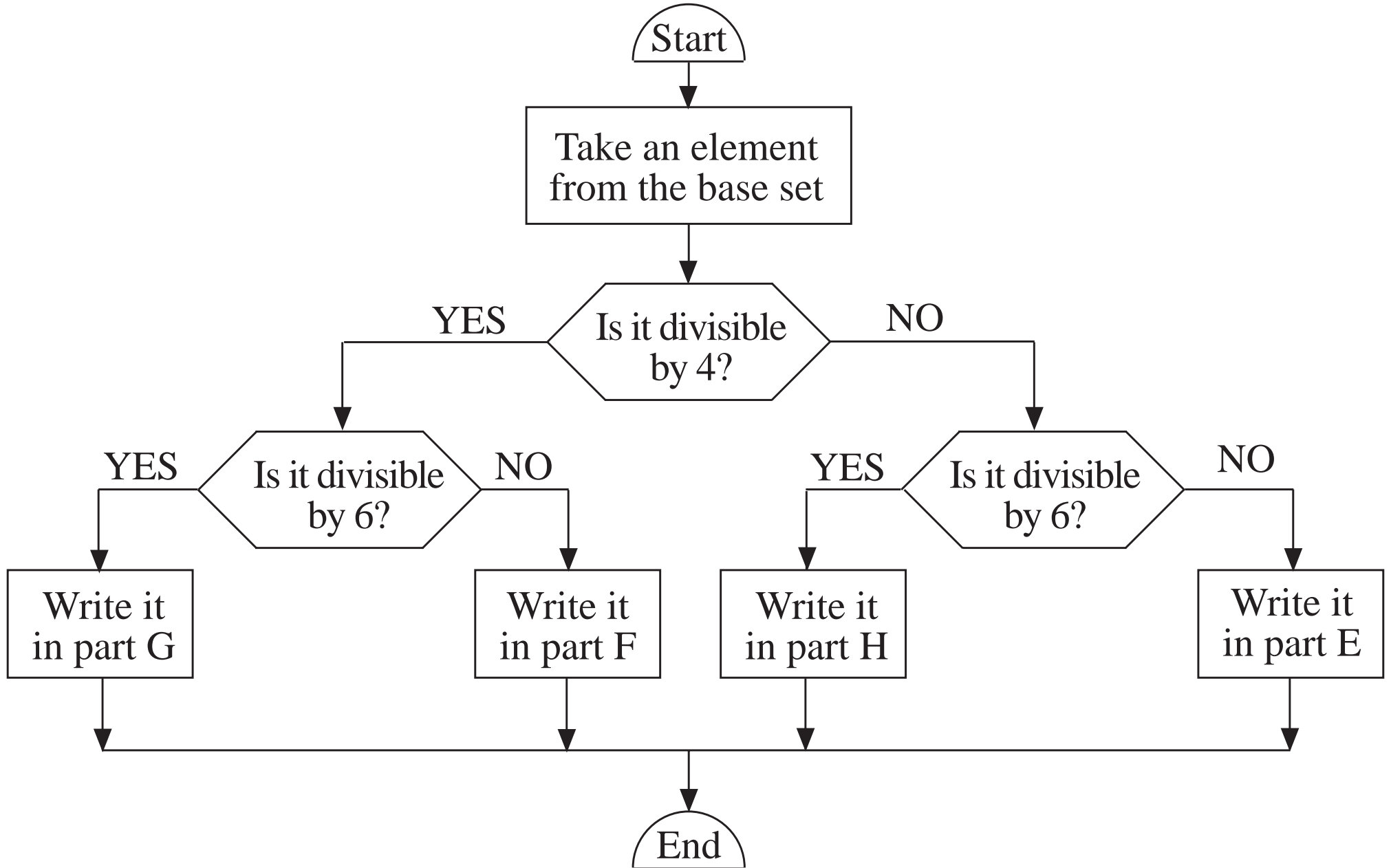


a)

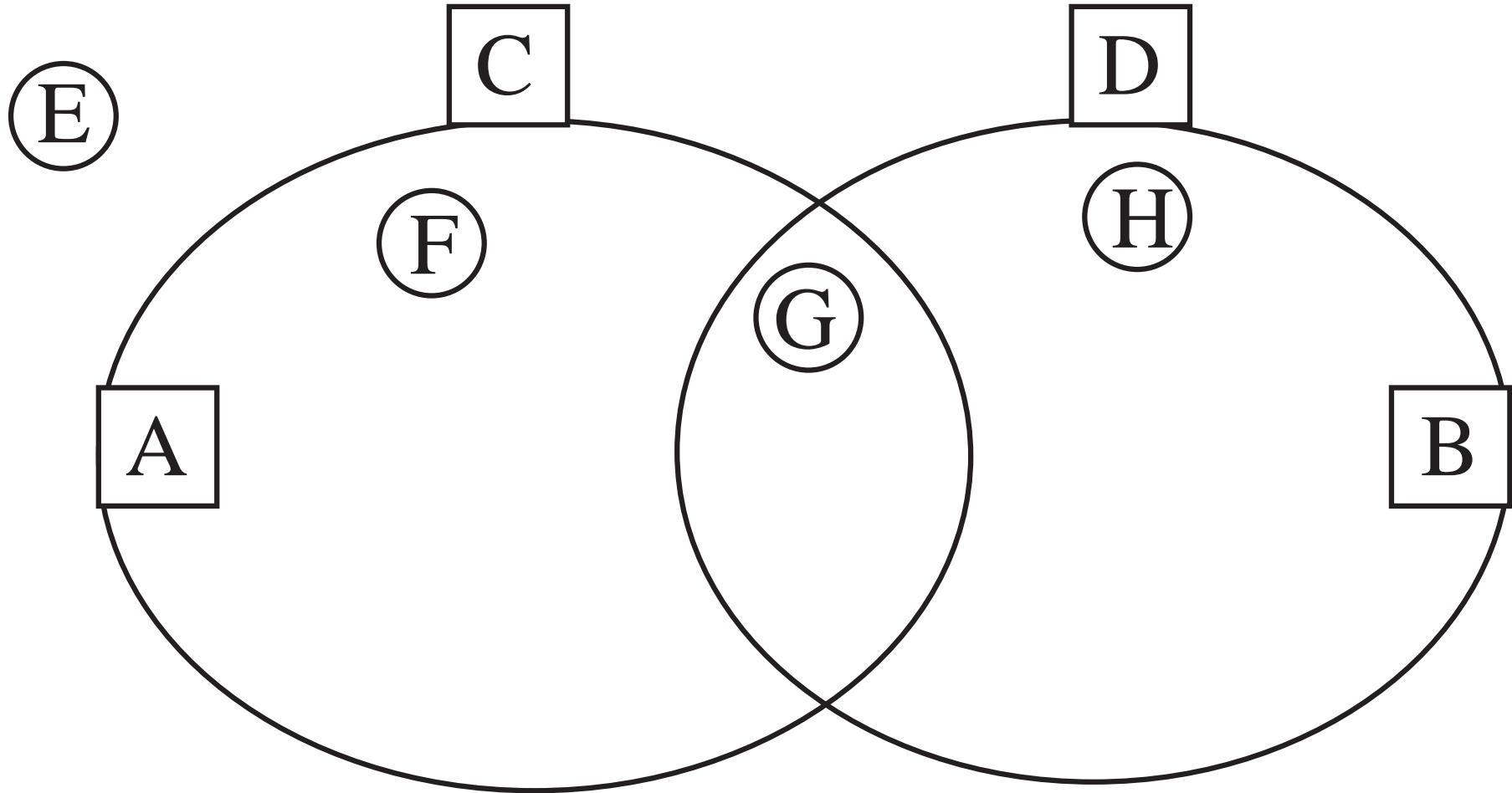


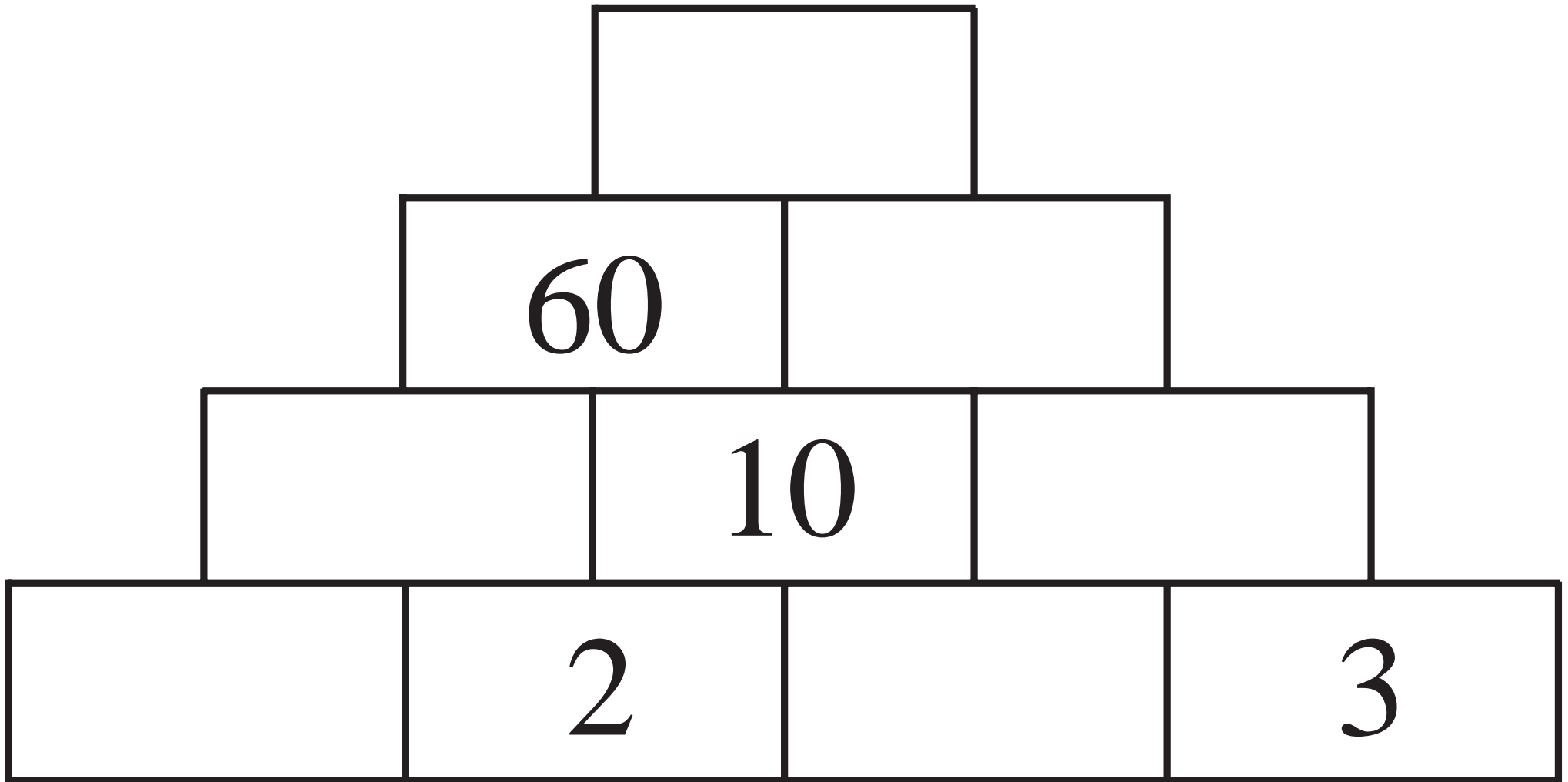
b)

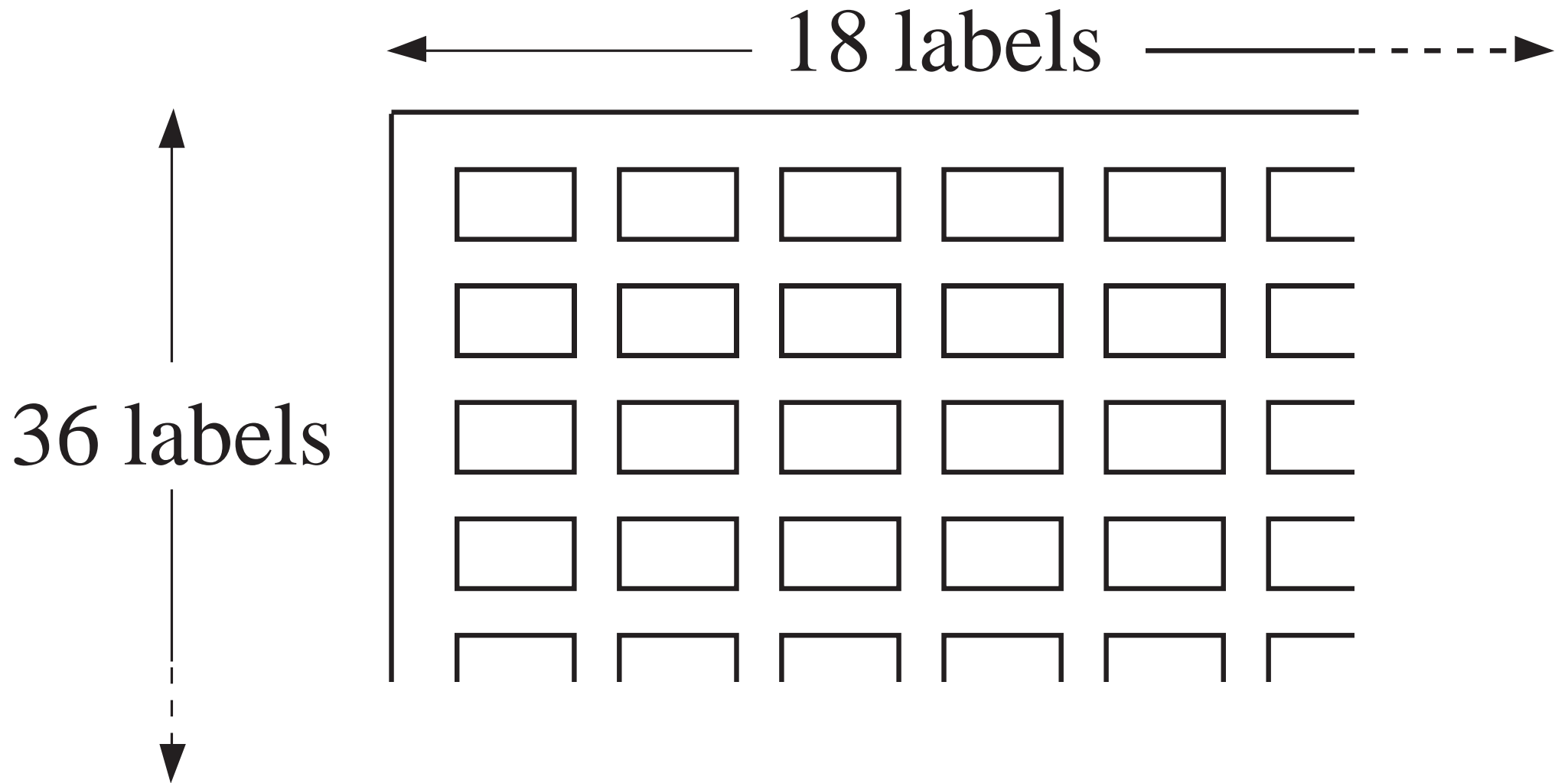




$0 < x < 25$; whole numbers







Pea Soup

Tomato Soup

Chicken Soup

Pea Soup

Tomato Soup

Mushroom Soup

