



×	0	1	2	3	4	5	6	7	8	9	10	11	12	13
0	0		0		0		0		0	0			0	
1	0	1	2	3		5		7	8		10			13
2	0	2	4			10	12			18			24	
3			6				18			27		33		
4			8	12			24	28		36	40			
5	0			15	20			35	40			55		
6		6			24	30			48			66		78
7	0		14	21			42	49		63	70		84	
8	0			24	32						80			104
9		9	18			45			72			99		
10	0			30			60	70						130
11	0		22					77			110			
12		12			48		72							
13	0			39		65				117				

a)

2	3	0	6
		×	4

b)

	4	3	5
	×	1	0

c)

1	3	3	1
		×	6

d)

	9	7	8
		×	9

LP 111/6

a)

8	6	4	2	4

b)

3	4	1	8	6

c)

7	3	3	3	3

LP 111/7

a)

	4	8	2	7
+	3	5	6	2

b)

	5	0	3	7
+		6	0	6

c)

	3	3	3	3
		3	3	3
			3	3
+				3

LP 112/4

a)

	7	2	6	8
-	2	4	2	5

b)

	6	0	4	5
-		7	0	7

c)

	8	8	8	8
-		9	9	9

LP 112/5

$$\frac{4}{5} \text{ of } 50$$

$$1\frac{2}{3} + 2\frac{1}{3}$$

$$\frac{1}{4} \text{ of } 16$$

$$17.2 - 13.2$$

$$5.5 + 34.5$$

$$\left(\frac{1}{3} \text{ of } 240\right) \div 2$$

**4****40**

$$\left(\frac{4}{5} \text{ of } 50\right) \div 10$$

$$3.1 + 0.9$$

$$0.4 \text{ of } 100$$

$$\frac{2}{3} \text{ of } 60$$

$$\frac{4}{3} \text{ of } 3$$

$$\frac{2}{5} \text{ of } 100$$

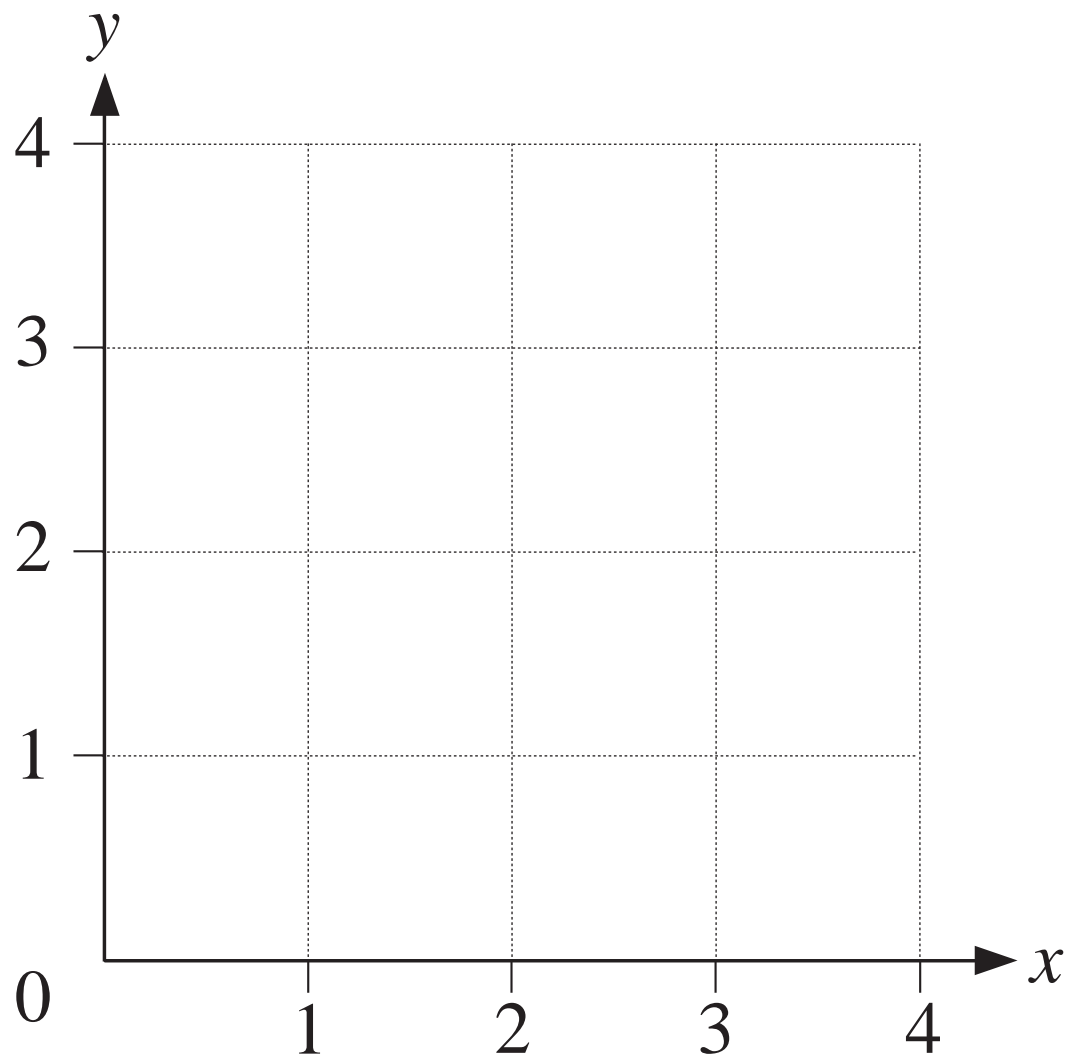
$$A = \{1, 2, 3, 4\}$$

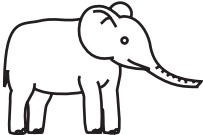

(1, 1) (1, 2) (1, 3) (1, 4)

(2, 1) (2, 2) (2, 3) (2, 4)


(3, 1) (3, 2) (3, 3) (3, 4)

(4, 1) (4, 2) (4, 3) (4, 4)

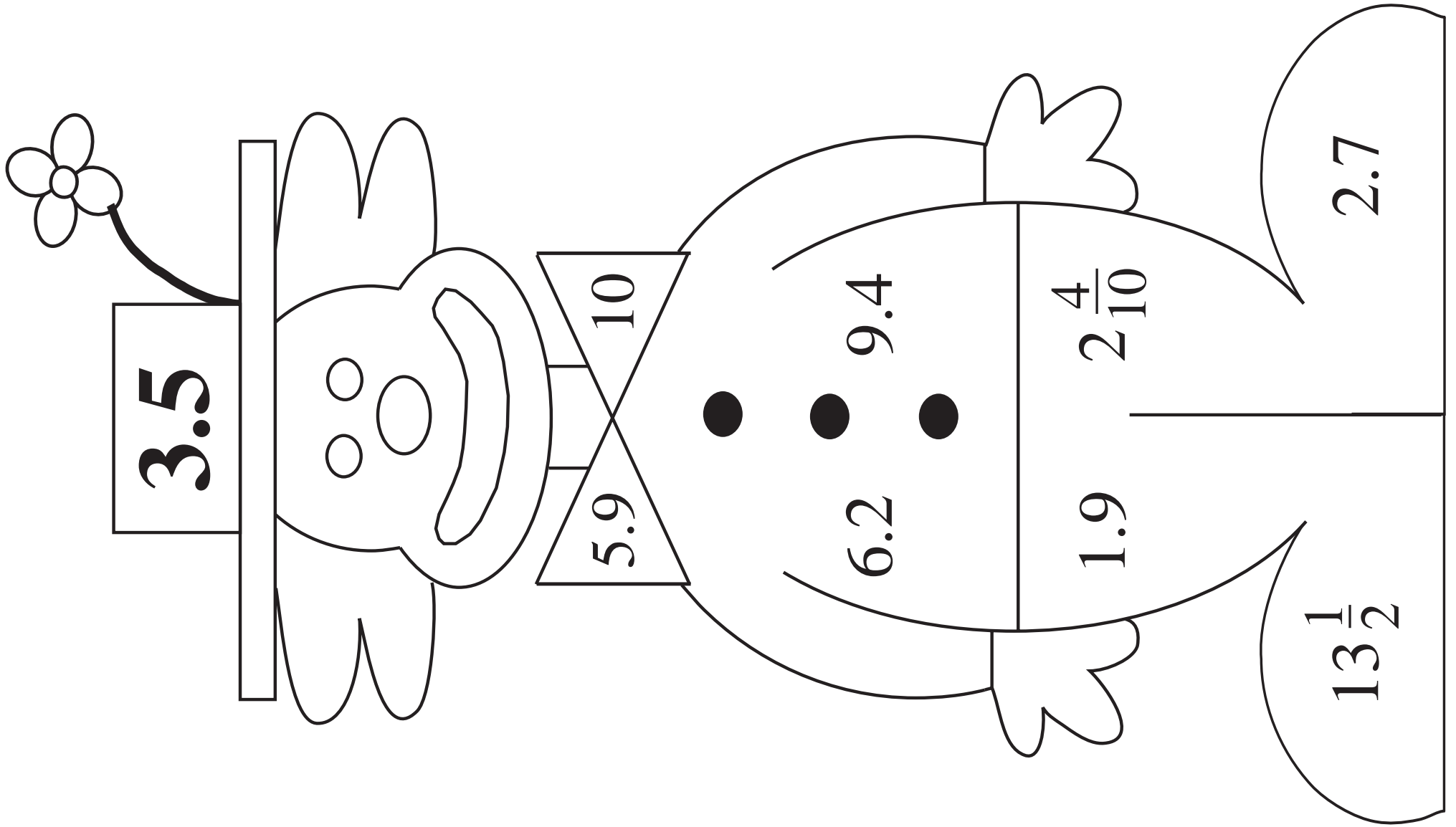



	32 litres			1630 cl		36.2 litres	
		27 litres	8900 ml		$12 \frac{3}{4}$ litres		10.40 litres

LP 113/4

 Time (seconds)	1	2	3	4	5	0	10	100		
Distance (m)	0.20								2.40	1.6

LP 113/7



Quantity of (in kg) 	1	2	3	4	5	6	7	8	9	10	$2\frac{1}{2}$
Price (in p)	208										
Price (in £)	2.08										

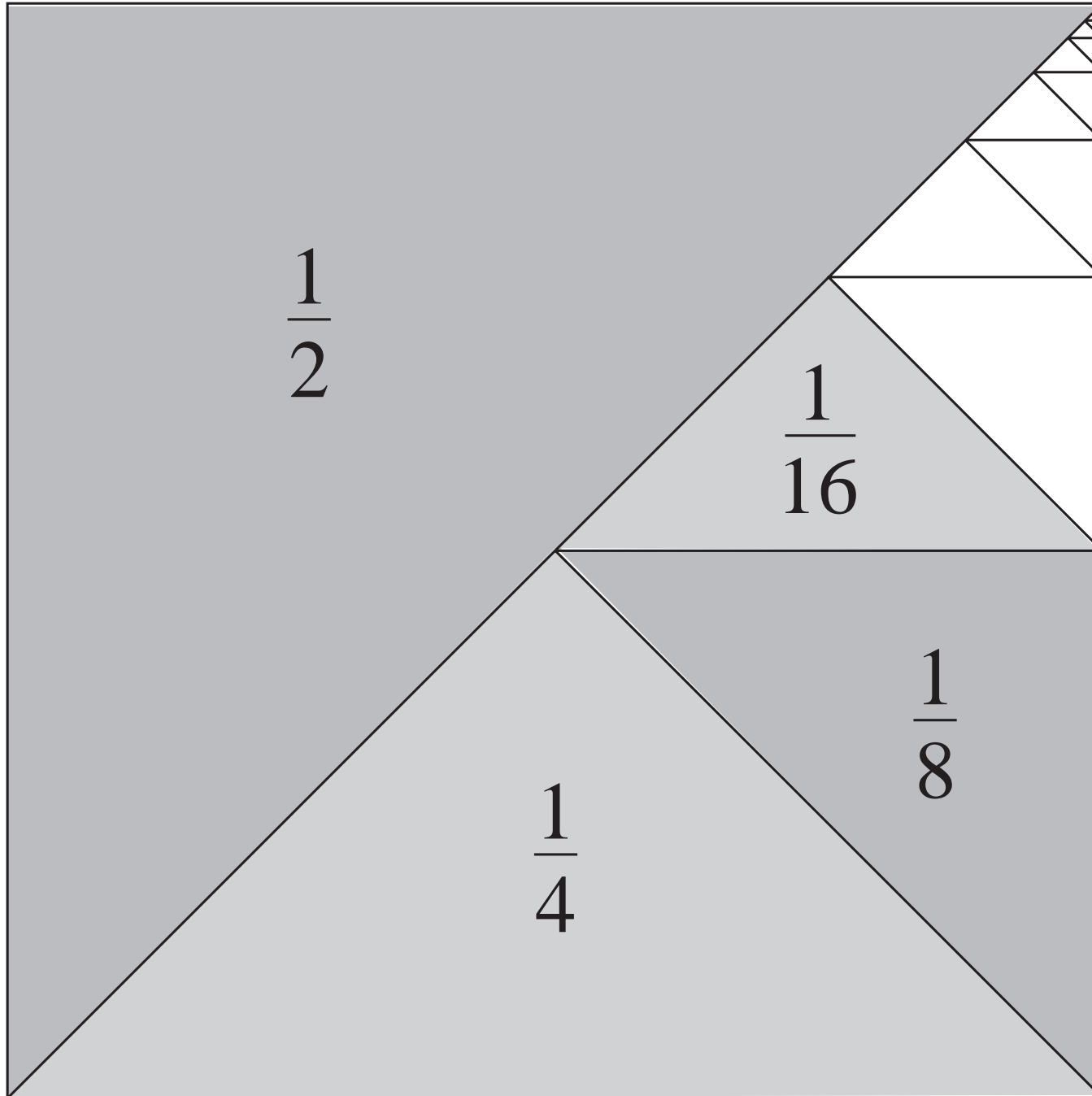
LP 113/8



Time (seconds)	1	2	3	4	5	10	100			0
Distance (m)	0.8							160	16	

LP 115/1





a)

	1	6	0	.	1
			5	.	6
+		3	3	.	0
<hr/>					

b)

	1	3	9		
			0	.	7
+		5	8	.	2
<hr/>					

c)

		0	.	8	7
		2	.	3	0
+	2	0	.	3	
<hr/>					

d)

		1	.	9	4
		6	.	0	0
+	6	2	.	0	8
<hr/>					

e)

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

f)

	8	.	4	7
-	3	.	4	6
<hr/>				

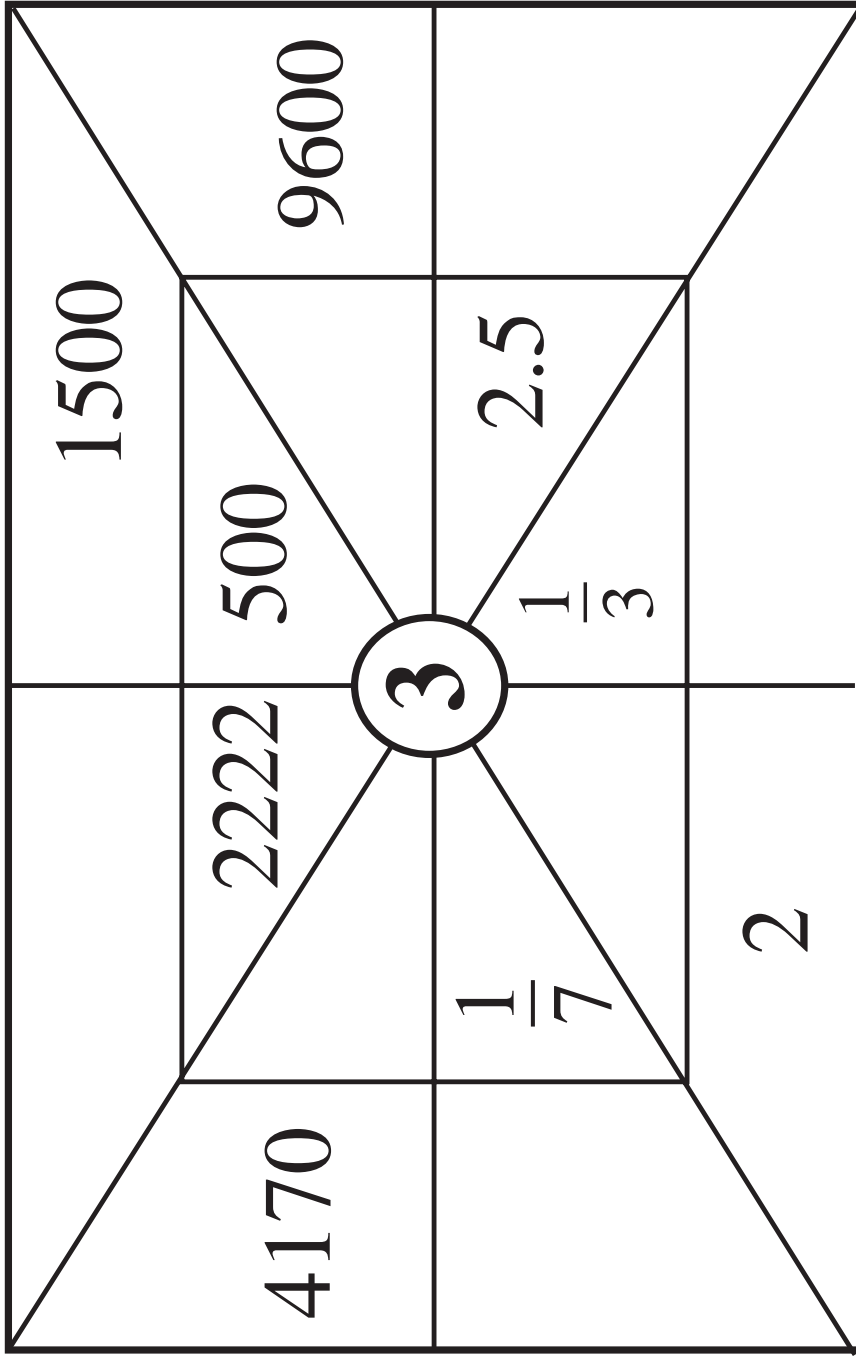
g)

	7	3	.	5
-	4	8	.	2
<hr/>				

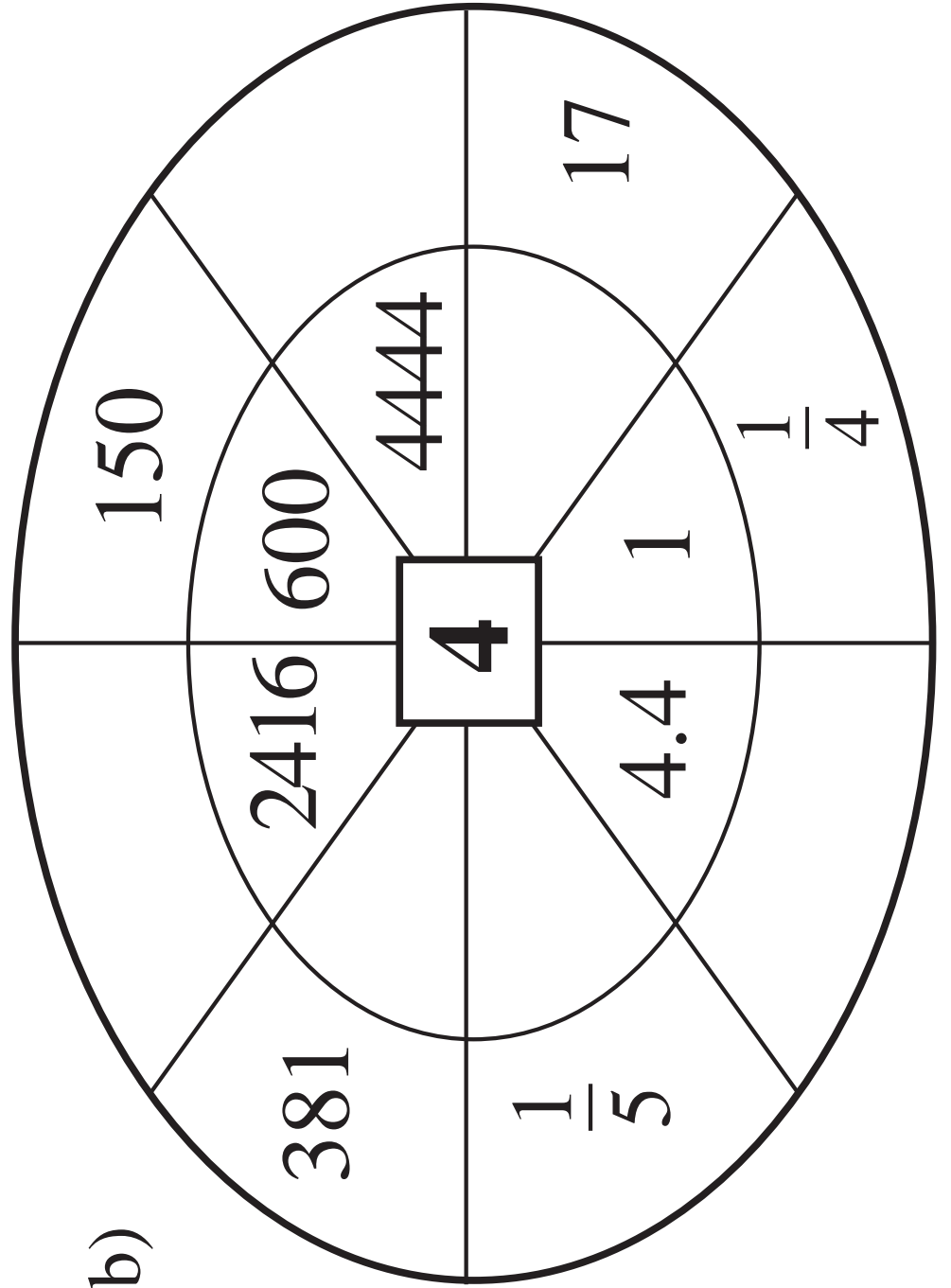
h)

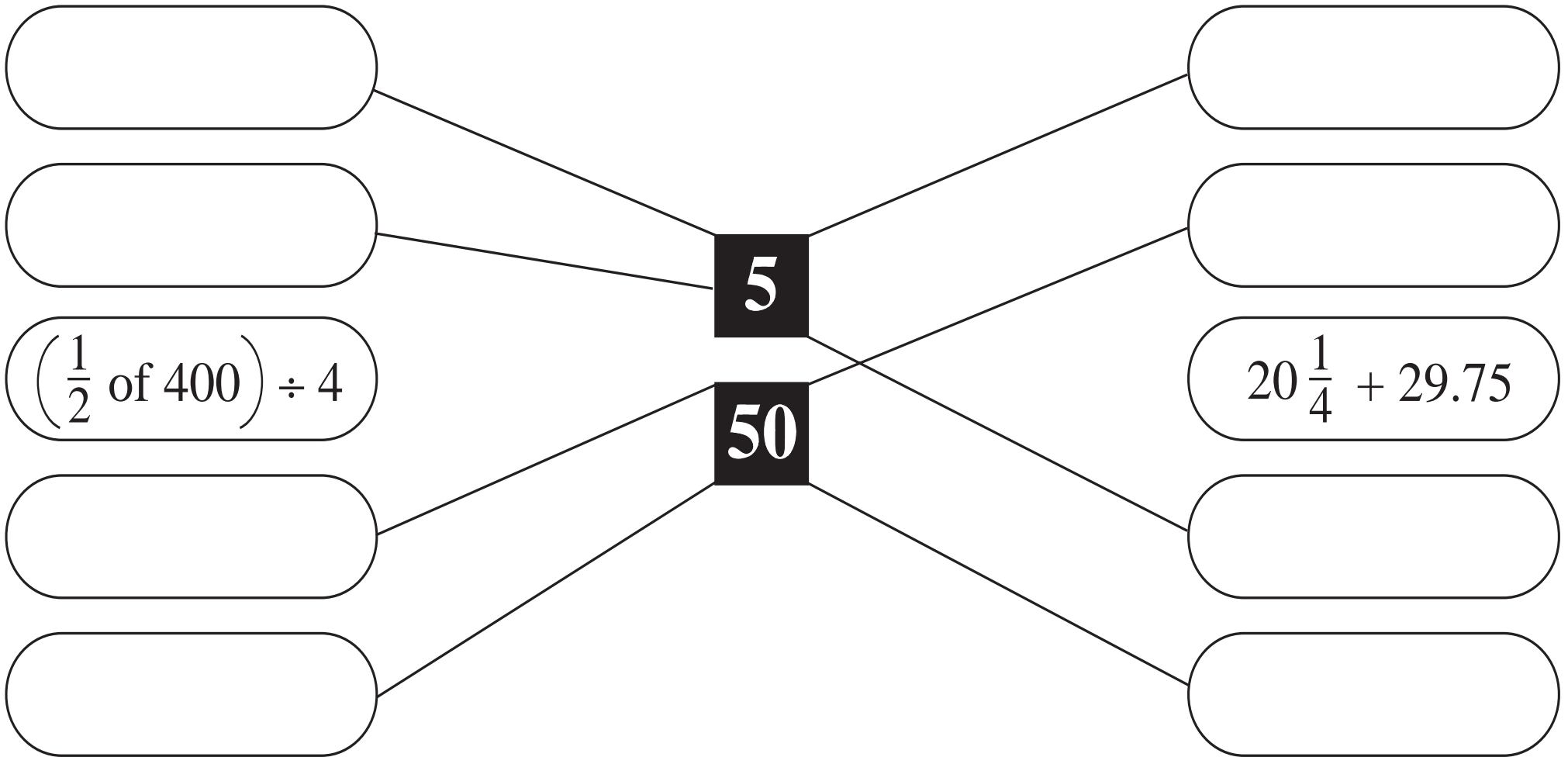
	1	7	.	5	6
-		6	.	8	
<hr/>					

a)



b)





# Horizontal Clues

**1** 5 is ... than 8.

**4** 7 is ... of 14.

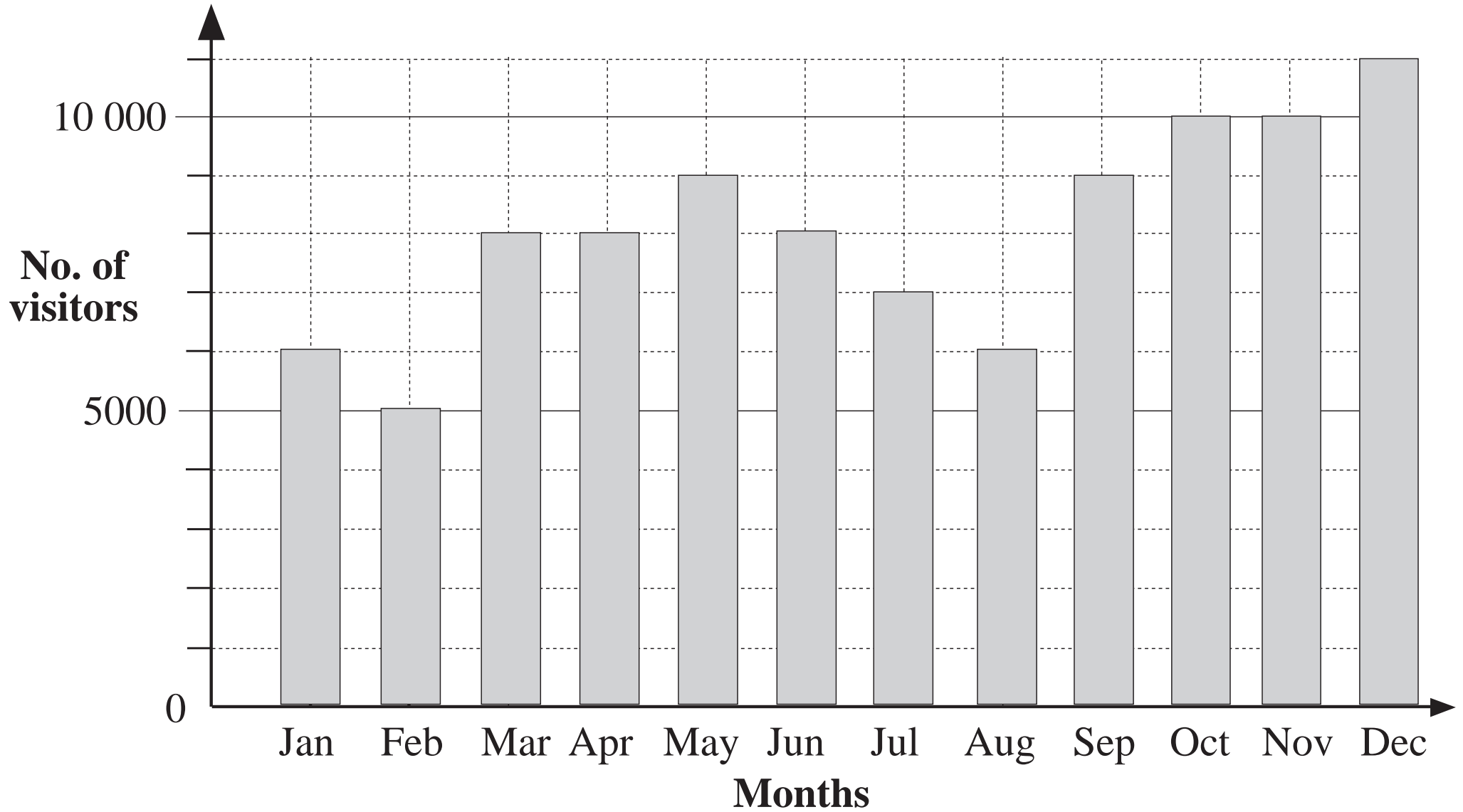
**2** Every ... is a rectangle.

**5**  $15 \div 5 = \dots$

**3**  $17 \times 81$  is a ...

**6**  $100 \div 5 = \dots$

1																			
	2																		
	3																		
	4																		
5																			
6																			



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

LP 116/6b

- a) Nine thousand, four hundred and seventy-four
- b)  $6 \times 1000 + 8 \times 10 + 5 \times 1$
- c) 10 thousands + 3 hundreds + 47
- d)  $1 \times 10\ 000 + 4 \times 1000 + 3 \times 10 + 9 \times 1$
- e) 14 thousands + 670

TTh	Th	H	T	U

LP 116/7

a)

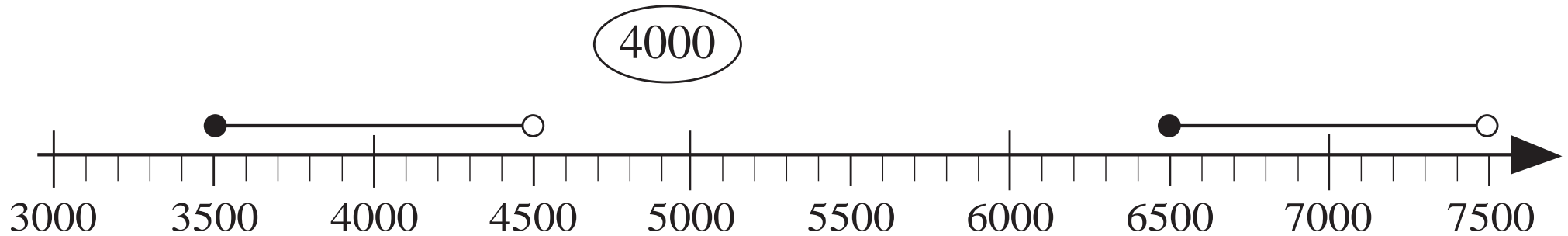
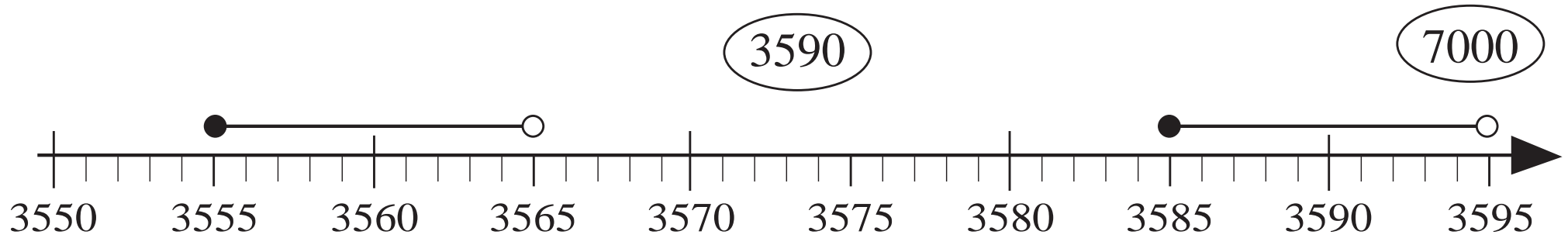
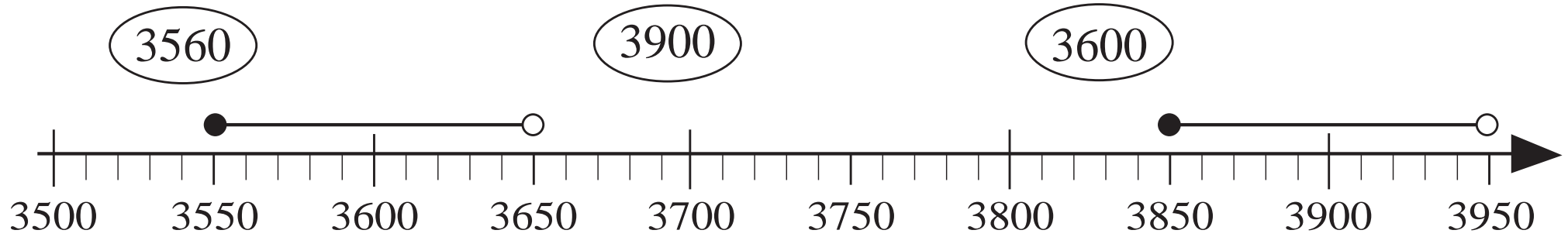
				21
	16			
7		27		
1				

b)

27			
		36	
	6		
	2		8



Number	Nearest 10	Nearest 100	Nearest 1000
3484 $\approx$	3480	3500	3000
6584 $\approx$			
9046 $\approx$			
9951 $\approx$			
10 078 $\approx$			
15 305 $\approx$			



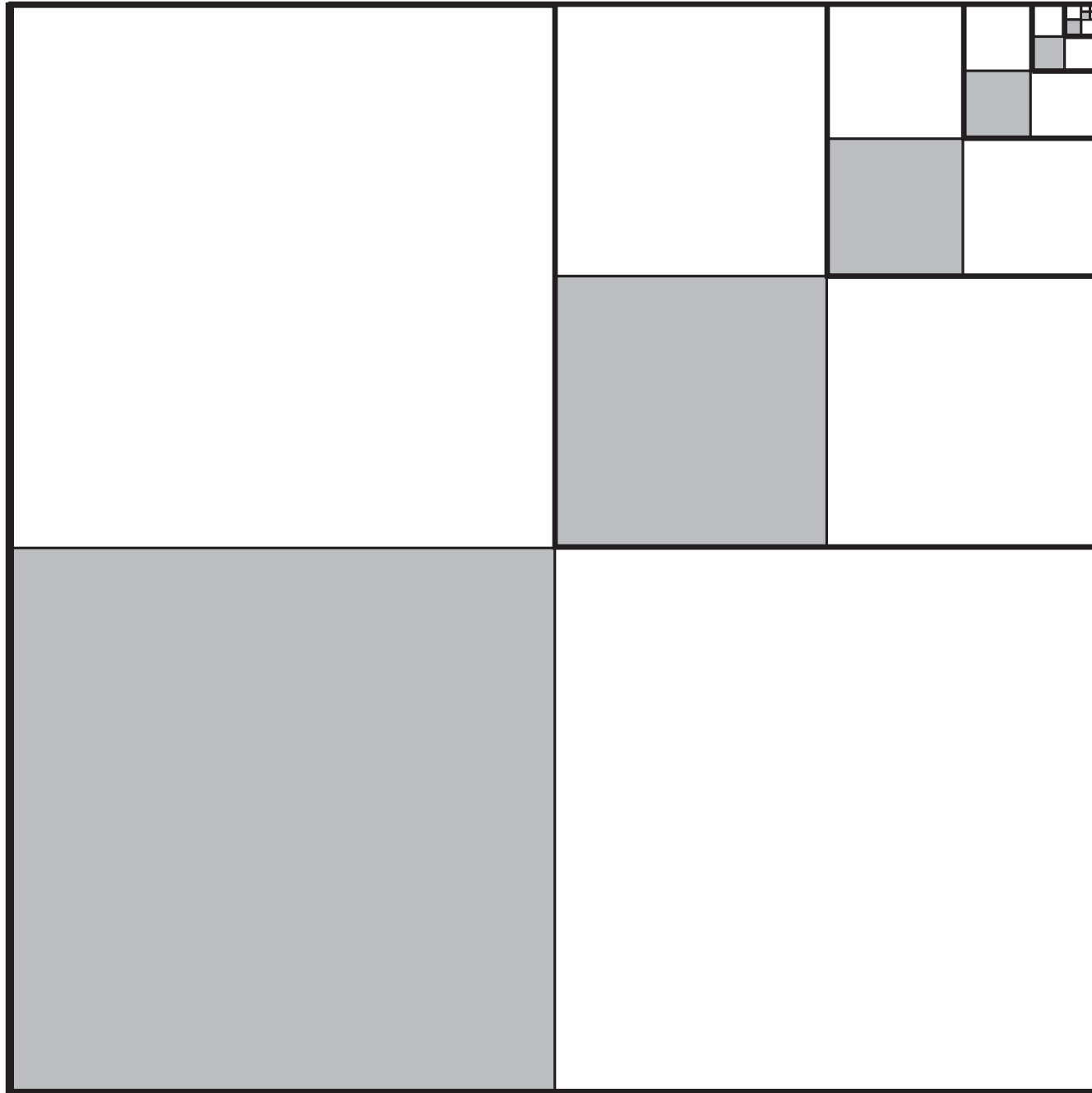


1	2								
6000	3000								


# Horizontal Clues

- 1 If you multiply a number by 3, you get its . . .
- 2 If you divided 18 by 5, the remainder is . . .
- 3 200 divided by 40 equals . . .
- 4 312 divided by 7 equals 44, and 4 is the . . .
- 5 24 is a . . . of 3.

1										
	2									
		3								
	4									
5										

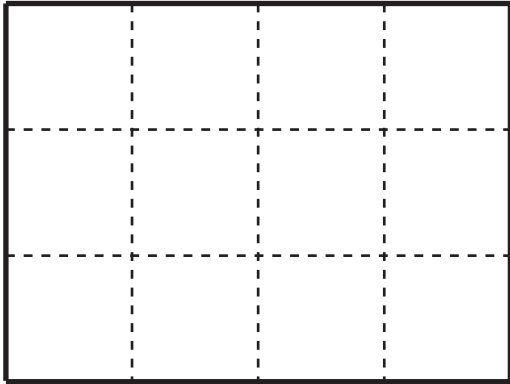




Number	+ 1	+ 10	+ 100	+ 1000
5999				
6899				
4099				
7009				

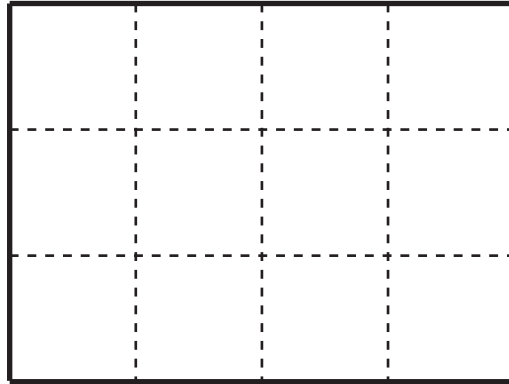
a)

$$\frac{3}{4}$$



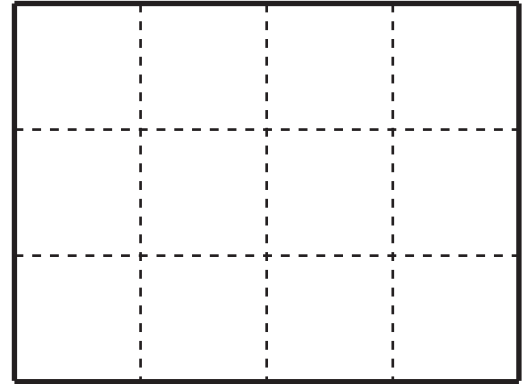
b)

$$\frac{1}{3}$$



c)

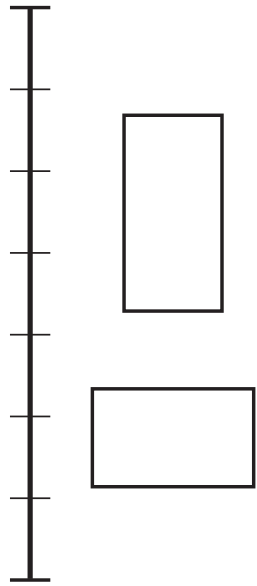
$$\frac{5}{6}$$



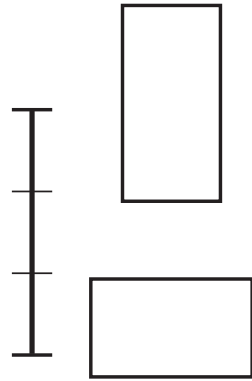


1 unit

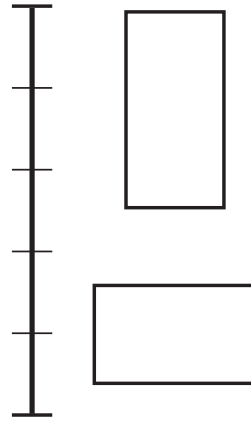
a)



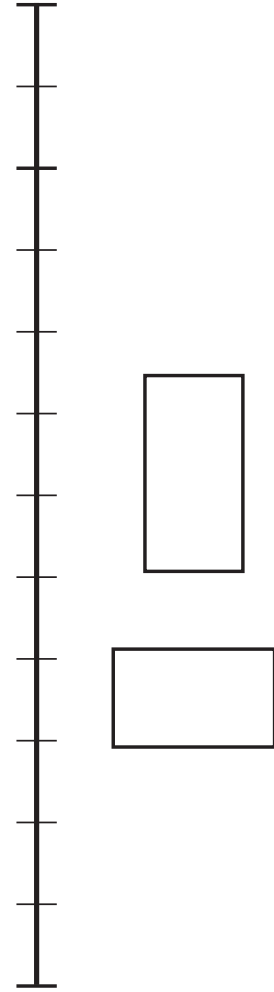
b)



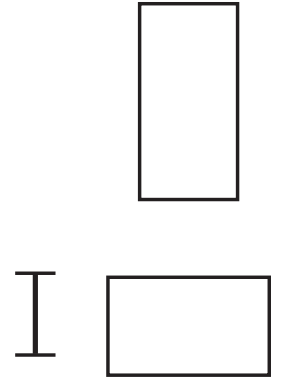
c)



d)



e)





3572

10 324

less than

greater than

less than

greater than

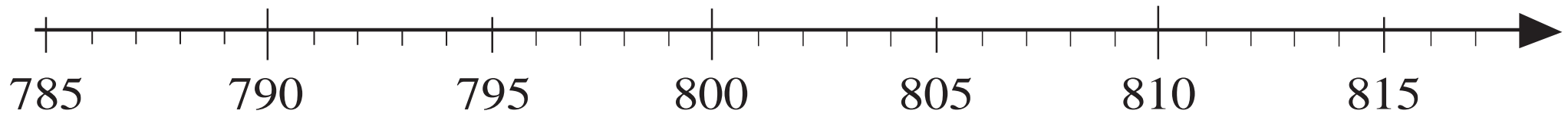
Tens

Hundreds

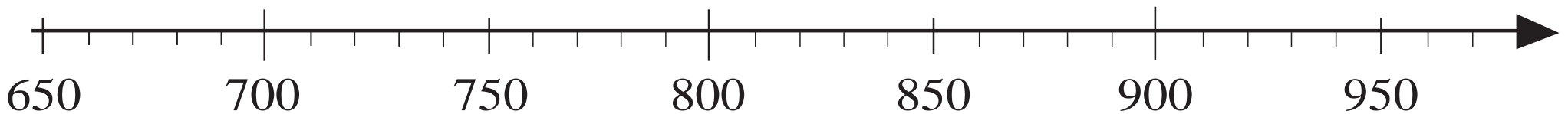
Thousands


LP 119/5

a)



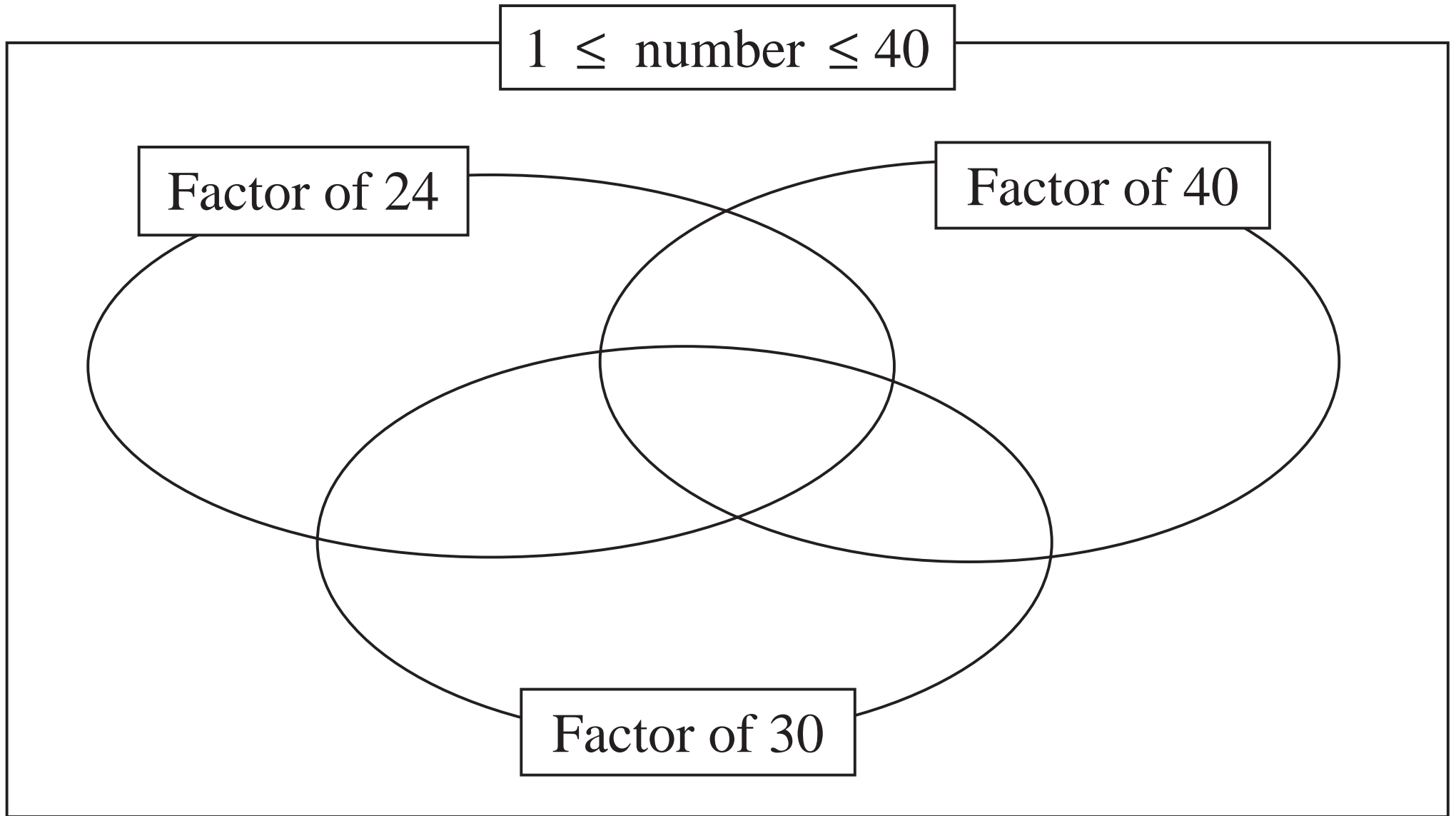
b)

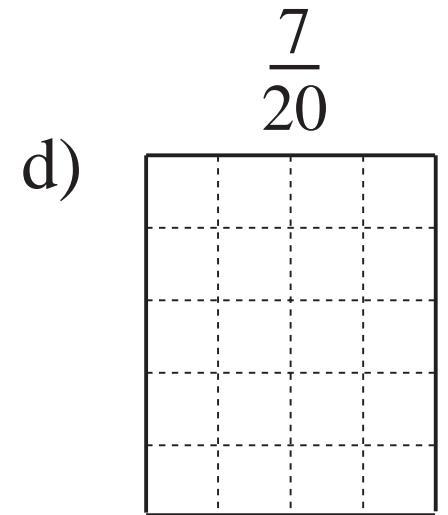
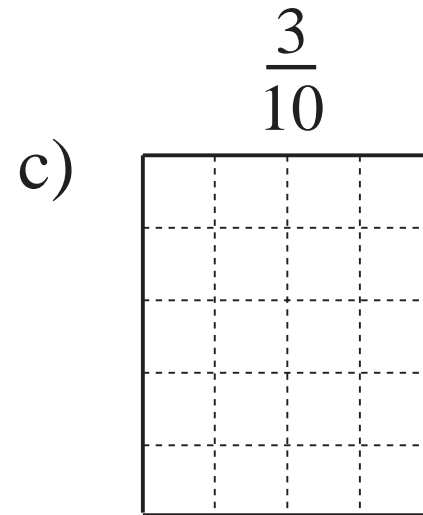
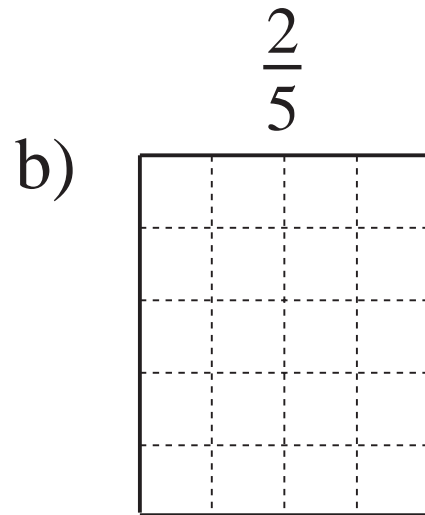
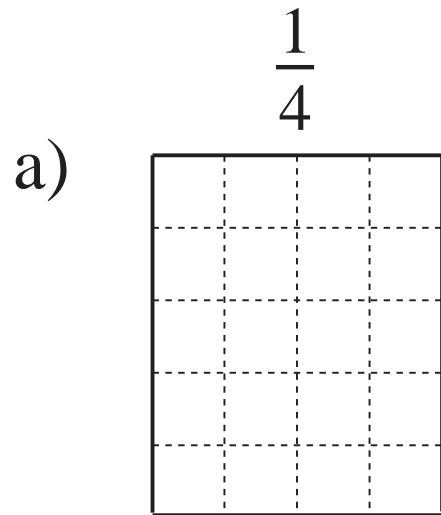


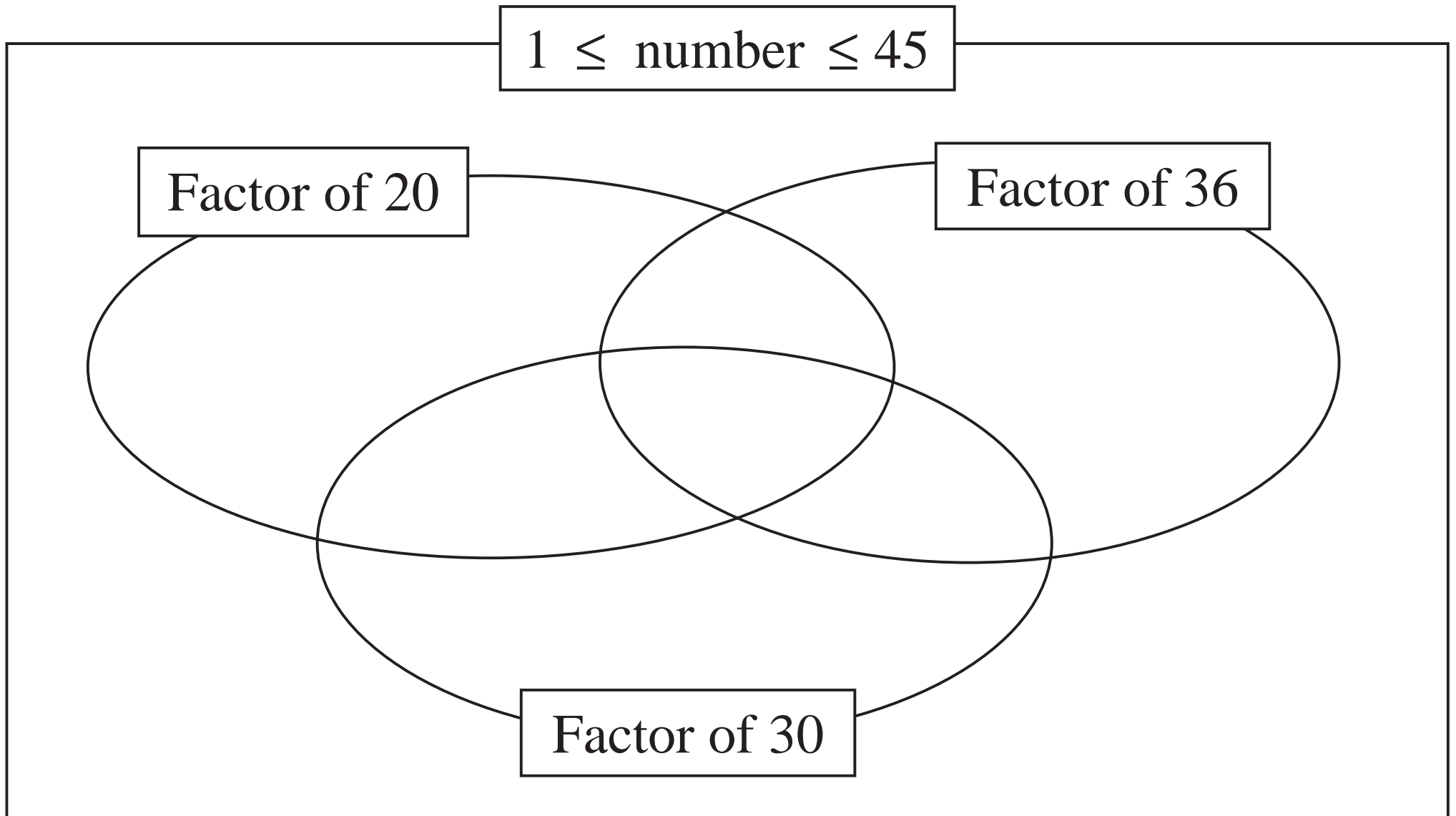
LP 119/6

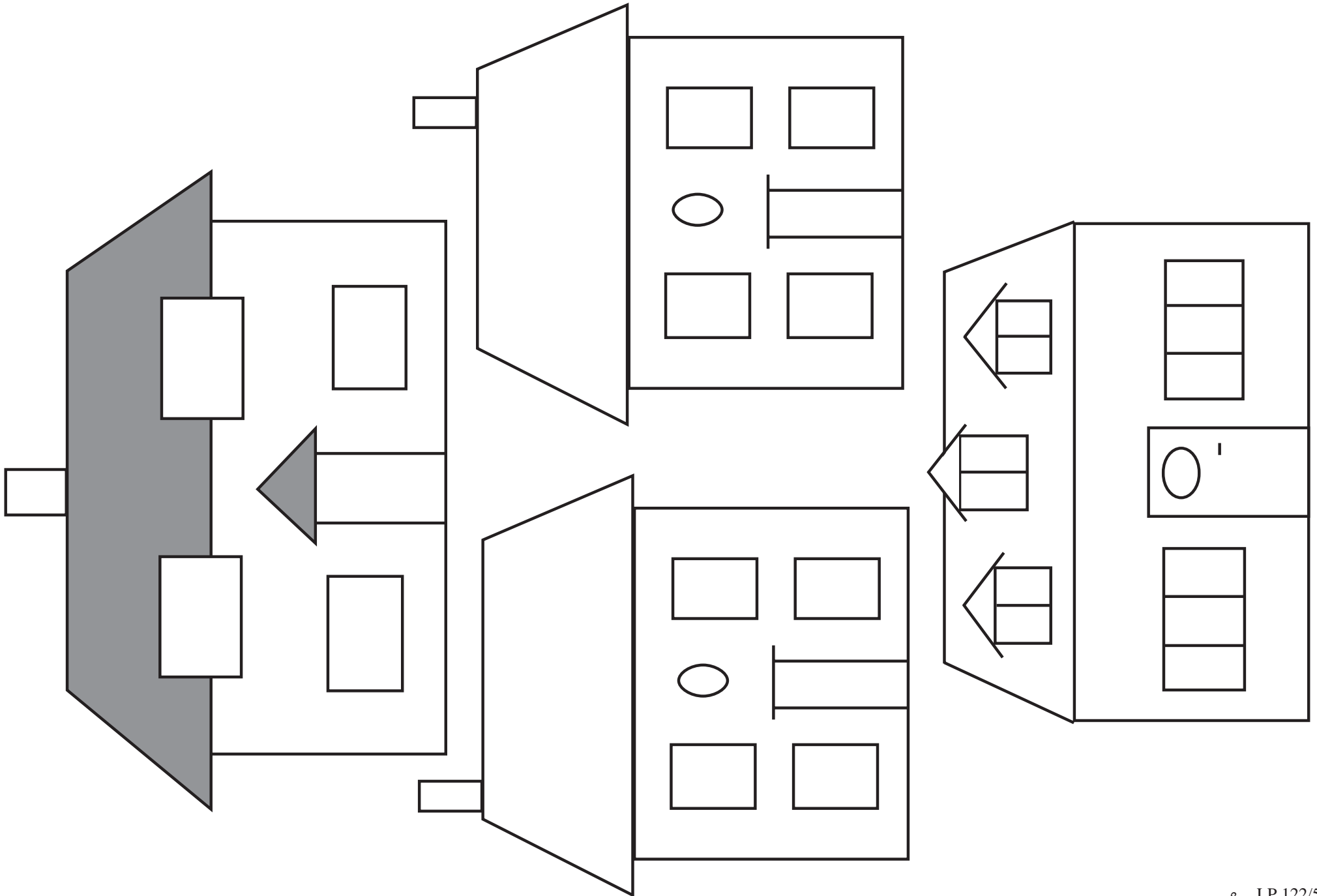


Numbers	Smallest	Greatest	How many?
2-digits			
3-digits			
4-digits			
5-digits			
6-digits			



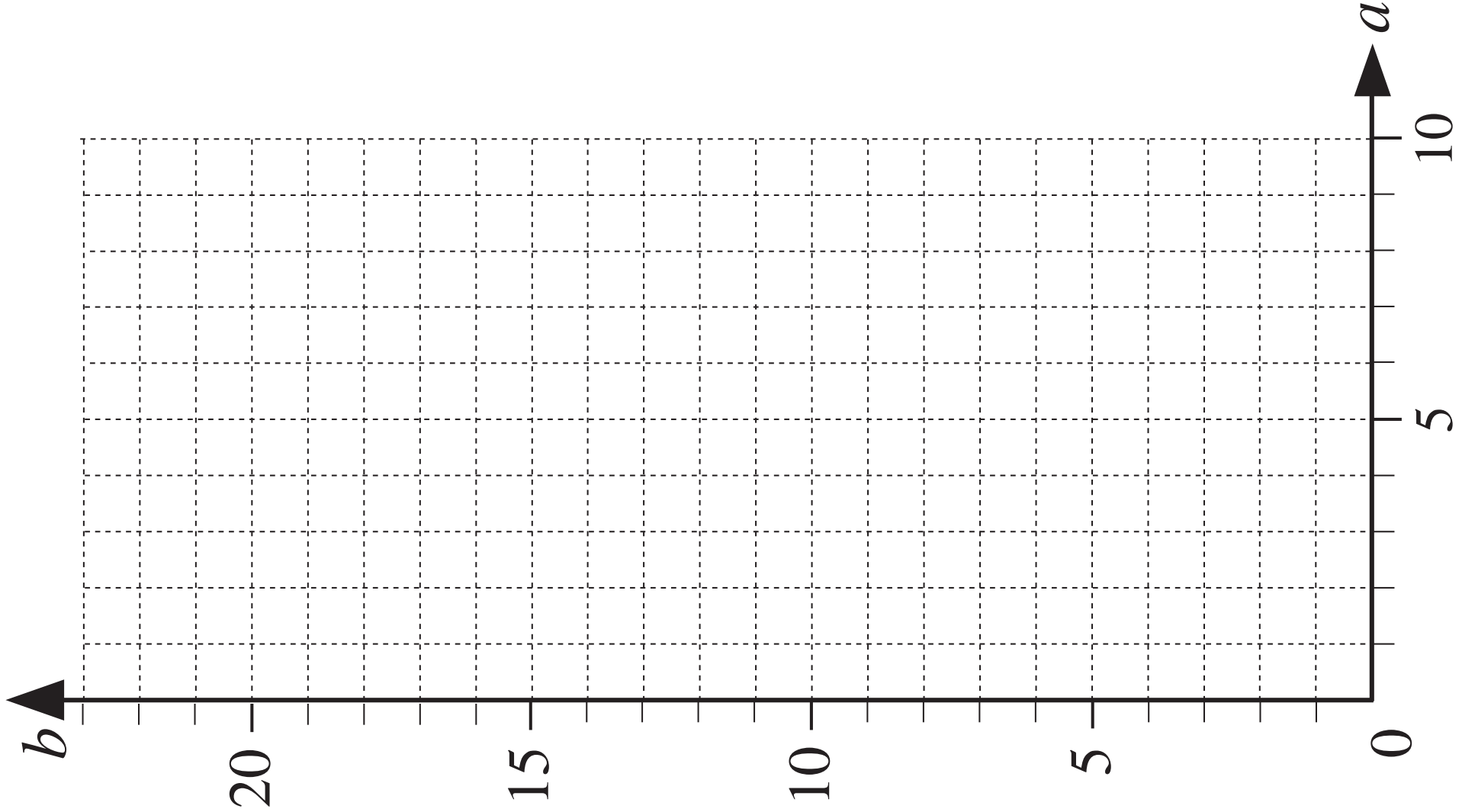






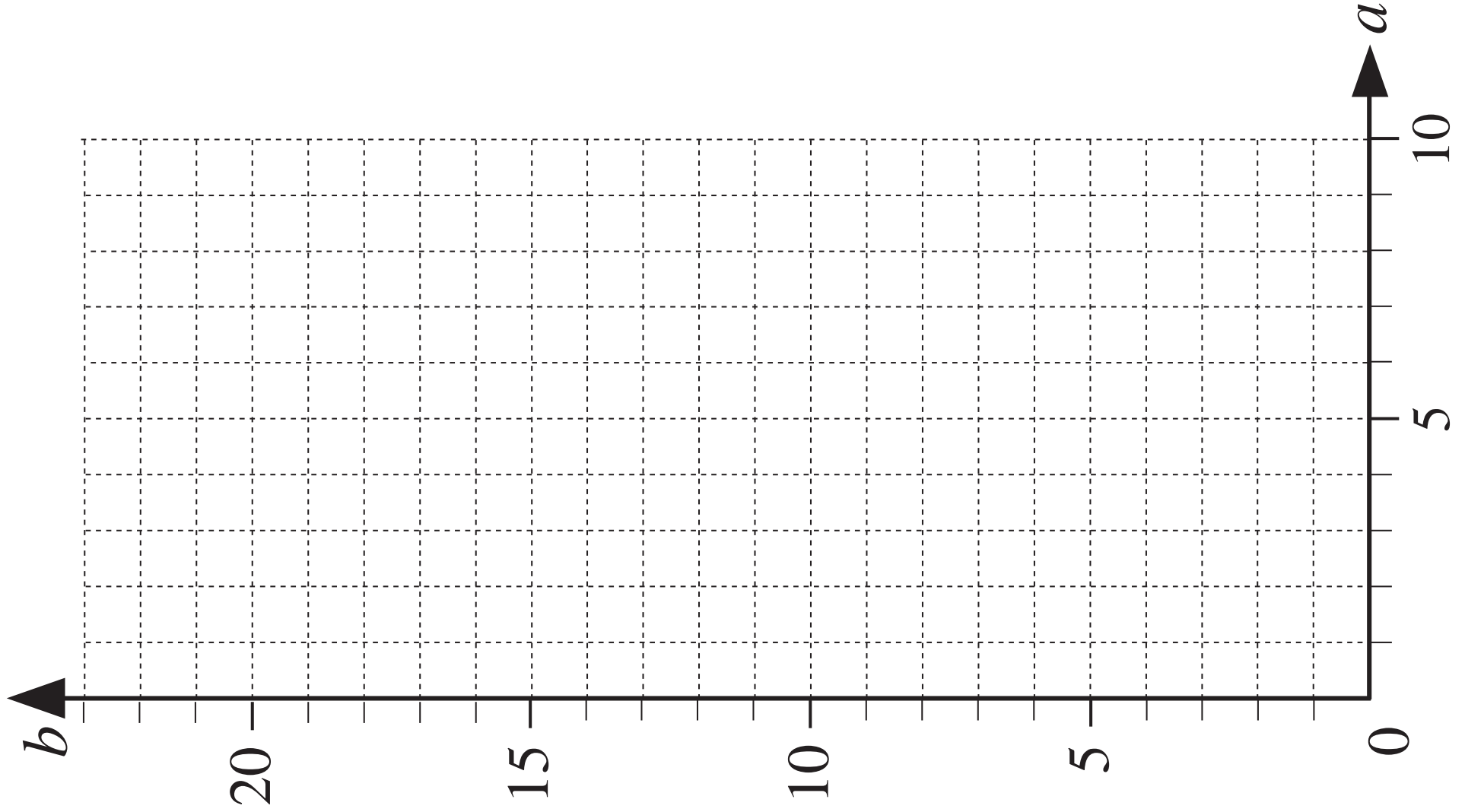
a)  $b = 2 \times a$

$a$	$b$
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	



b)  $b = 2 \times a + 3$

$a$	$b$
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	





a) 1 litre =  cl      4 litres =  cl      7 litres =  cl

b) 1 m =  mm      4 m =  mm      7 m =  mm

c) 1 kg =  g      4 kg =  g      7 kg =  g

d) 100 cl =  litre      300 cl =  litres      800 cl =  litres

e) 1000 mm =  m      3000 mm =  m      300 mm =  m

f) 1000 g =  kg      8000 g =  kg      800 g =  kg

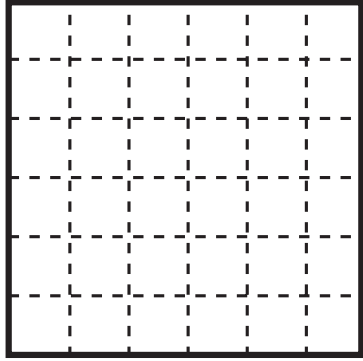
a)  $\frac{1}{5} \text{ m} = \boxed{\phantom{000}} \text{ cm}$       $\frac{3}{5} \text{ m} = \boxed{\phantom{000}} \text{ cm}$       $\frac{6}{5} \text{ m} = \boxed{\phantom{000}} \text{ cm}$

b)  $0.1 \text{ m} = \boxed{\phantom{000}} \text{ mm}$       $0.6 \text{ m} = \boxed{\phantom{000}} \text{ mm}$       $.5 \text{ m} = \boxed{\phantom{000}} \text{ mm}$

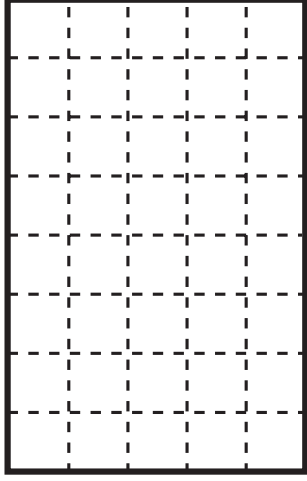
c)  $\frac{1}{4} \text{ kg} = \boxed{\phantom{000}} \text{ g}$       $\frac{2}{4} \text{ kg} = \boxed{\phantom{000}} \text{ g}$       $\frac{3}{4} \text{ kg} = \boxed{\phantom{000}} \text{ g}$

d)  $0.1 \text{ kg} = \boxed{\phantom{000}} \text{ g}$       $0.5 \text{ kg} = \boxed{\phantom{000}} \text{ g}$       $1.4 \text{ kg} = \boxed{\phantom{000}} \text{ g}$

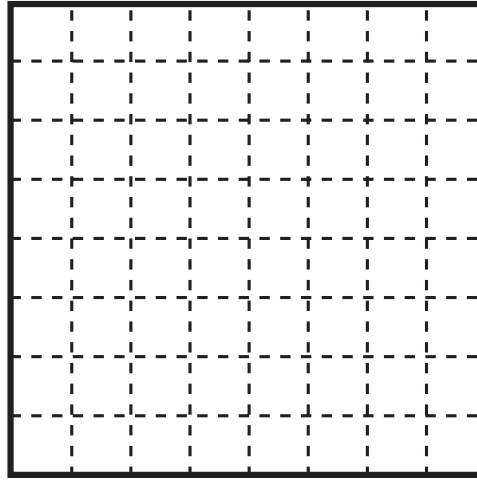
a)  $\frac{5}{6}$  of 36



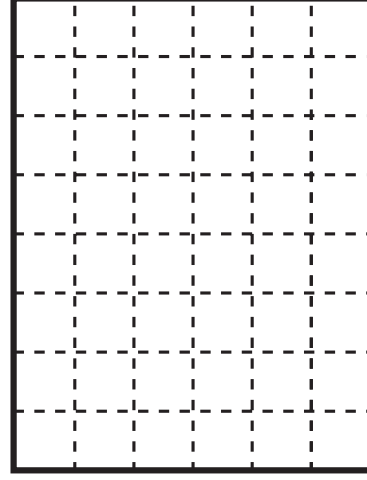
$\frac{4}{5}$  of 40



b)  $\frac{3}{8}$  of 64



$\frac{3}{6}$  of 48



## Amount of time

Part of it	1 hour	2 hours	5 hours	6 hours	8 hours	9 hours	10 hours
$\frac{1}{2}$							
$\frac{1}{4}$							
$\frac{1}{5}$							
$\frac{1}{10}$							
$\frac{3}{4}$							
$\frac{3}{5}$							
$\frac{3}{10}$							

$R$ (£)	0	2			5	6		8	9	10		12	13
$L$ (£)			11	13			19				27		

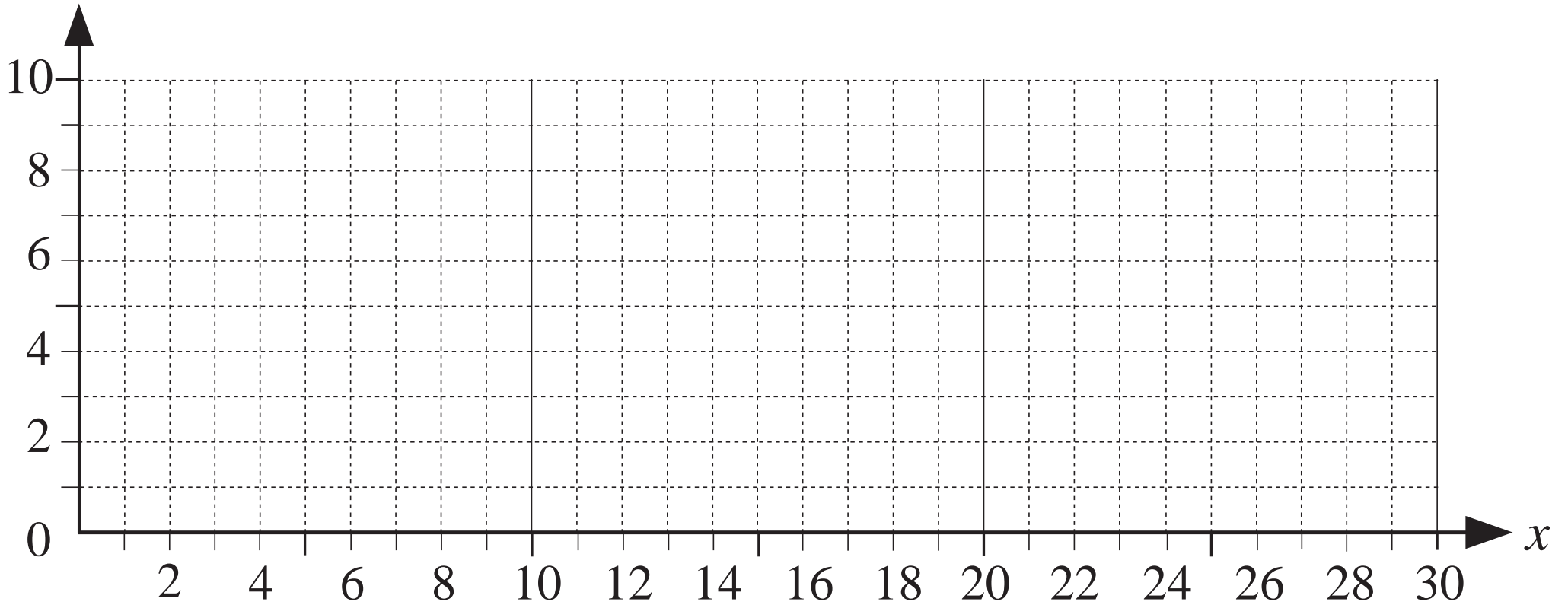
$$L =$$

$$R =$$

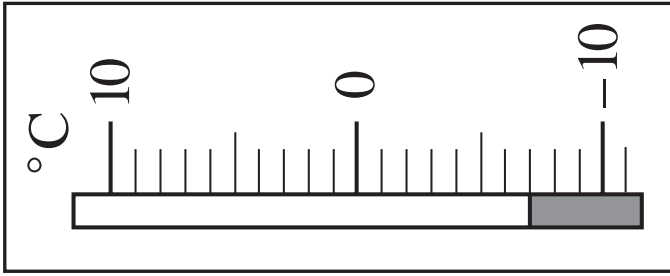
$$5 =$$

$$2 =$$

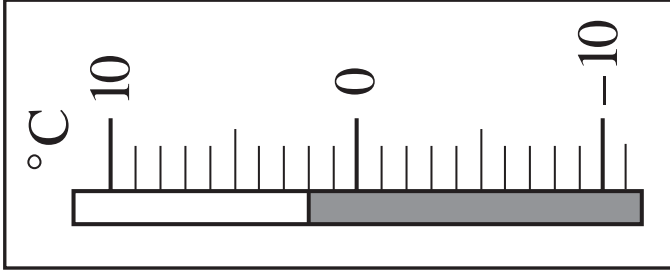
$x$							18	21	24	27	30
$y$	0	1	2	3	4	5					



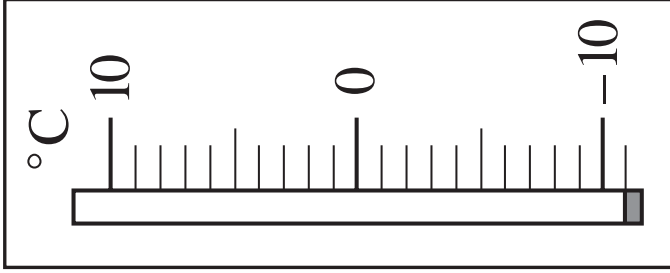
a)

 °C

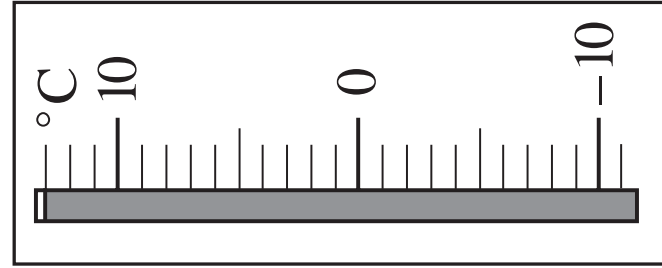
b)

 °C

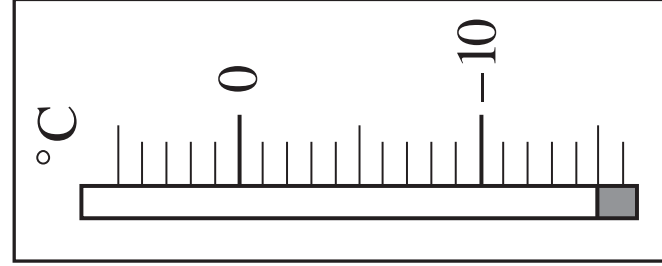
c)

 °C

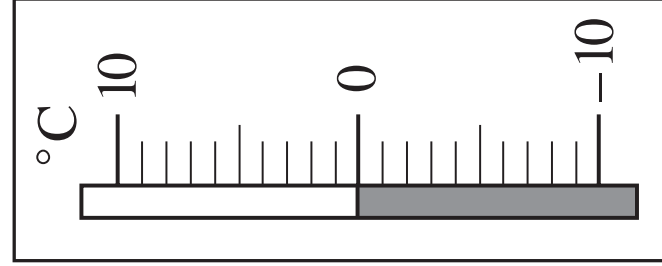
d)

 °C

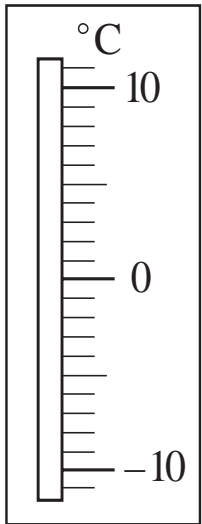
e)

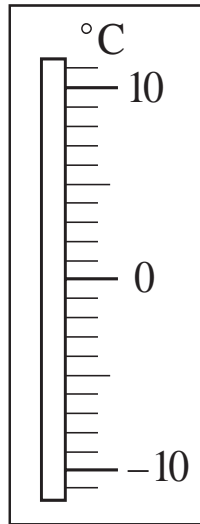
 °C

f)

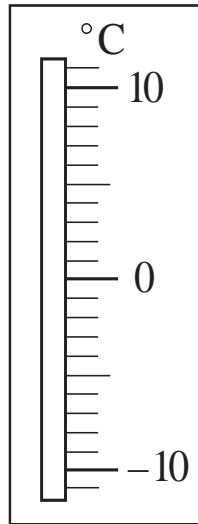
 °C

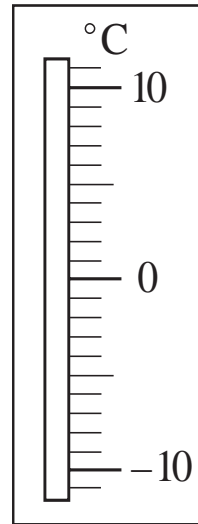
a)


 $4^{\circ}\text{C}$ 

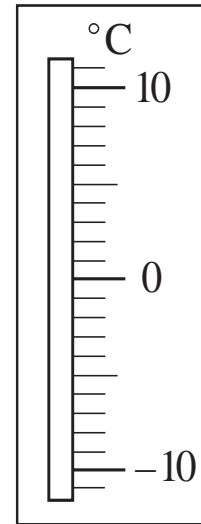
 $-9^{\circ}\text{C}$ 
  $^{\circ}\text{C}$ 


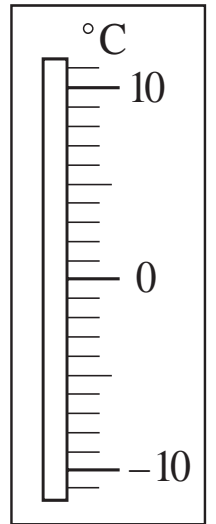
b)


 $-11^{\circ}\text{C}$ 

 $1^{\circ}\text{C}$ 
  $^{\circ}\text{C}$ 


c)


 $-4^{\circ}\text{C}$ 

 $11^{\circ}\text{C}$ 
  $^{\circ}\text{C}$ 


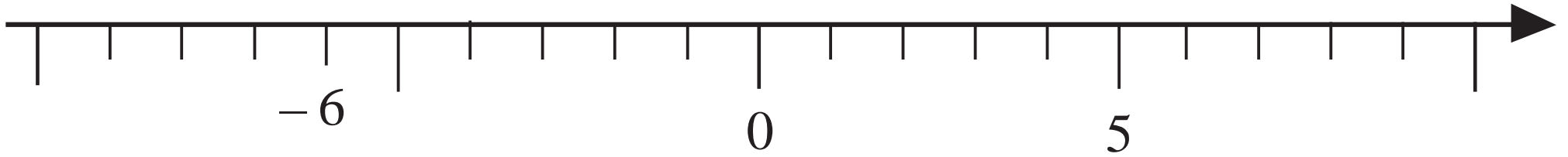


a)  $8^{\circ}\text{C}$    $5^{\circ}\text{C}$       $2^{\circ}\text{C}$    $9^{\circ}\text{C}$       $0^{\circ}\text{C}$    $3^{\circ}\text{C}$       $7^{\circ}\text{C}$    $0^{\circ}\text{C}$   
  $^{\circ}\text{C}$        $^{\circ}\text{C}$        $^{\circ}\text{C}$        $^{\circ}\text{C}$

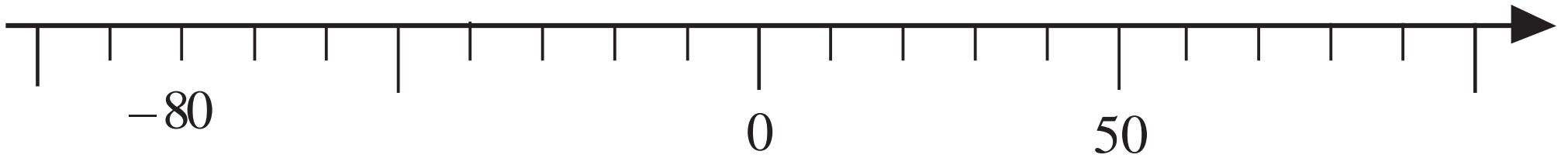
b)  $-4^{\circ}\text{C}$    $-1^{\circ}\text{C}$       $-5^{\circ}\text{C}$    $-10^{\circ}\text{C}$       $-6^{\circ}\text{C}$    $0^{\circ}\text{C}$       $0^{\circ}\text{C}$    $-2^{\circ}\text{C}$   
  $^{\circ}\text{C}$        $^{\circ}\text{C}$        $^{\circ}\text{C}$        $^{\circ}\text{C}$

c)  $3^{\circ}\text{C}$    $-2^{\circ}\text{C}$       $-3^{\circ}\text{C}$    $2^{\circ}\text{C}$       $4^{\circ}\text{C}$    $-11^{\circ}\text{C}$       $-4^{\circ}\text{C}$    $11^{\circ}\text{C}$   
  $^{\circ}\text{C}$        $^{\circ}\text{C}$        $^{\circ}\text{C}$        $^{\circ}\text{C}$

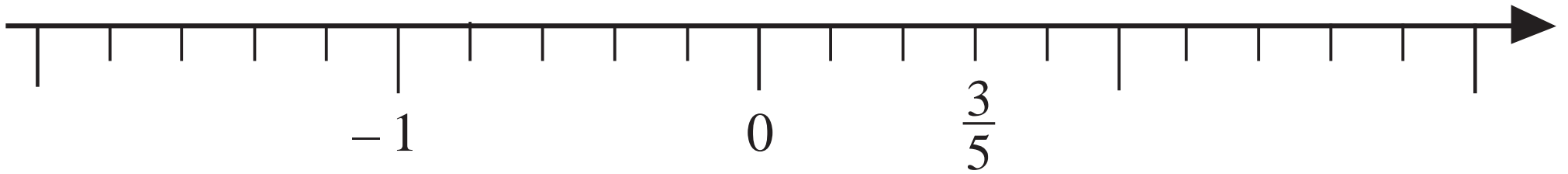
a)



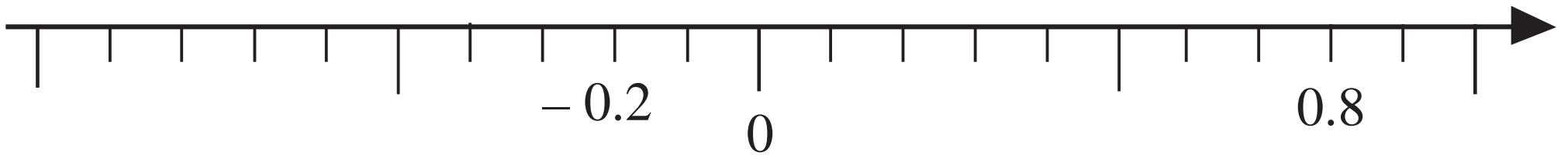
b)

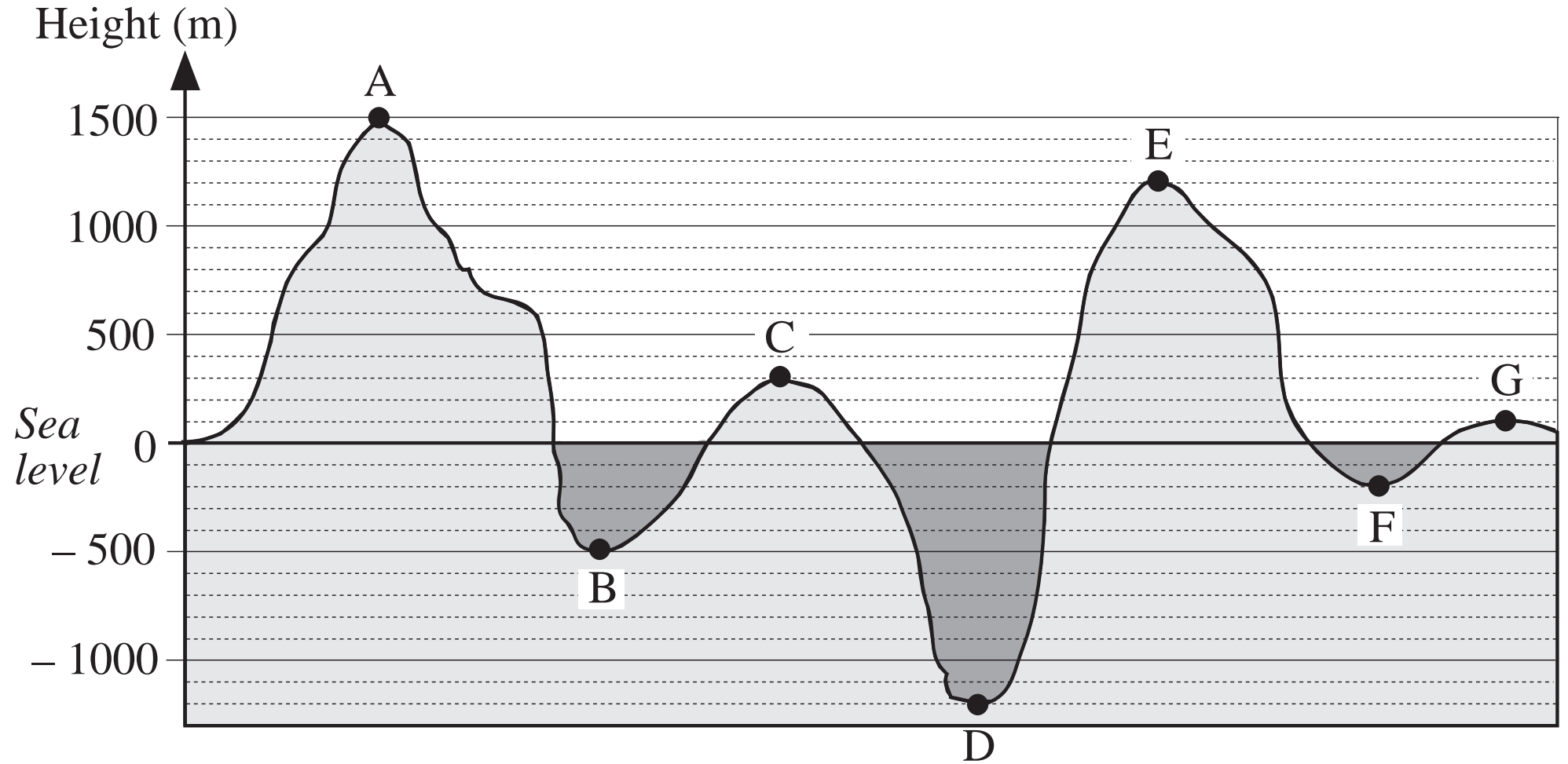


c)



d)



A:  mB:  mC:  mD:  mE:  mF:  mG:  m

a)  $251 \text{ m} \square 38 \text{ m}$   
 $\square \text{ m}$

$4500 \text{ m} \square 8848 \text{ m}$   
 $\square \text{ m}$

$0 \text{ m} \square 1015 \text{ m}$   
 $\square \text{ m}$

b)  $-305 \text{ m} \square -21 \text{ m}$   
 $\square \text{ m}$

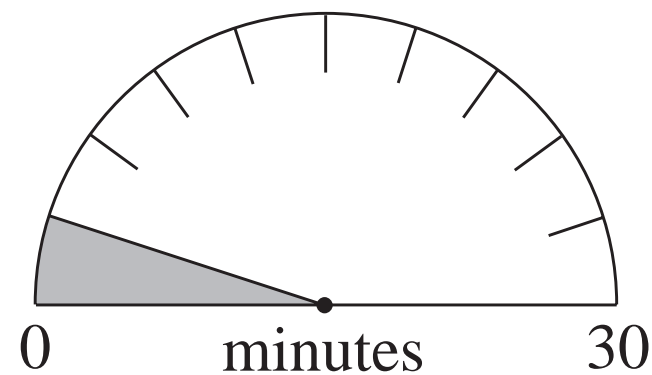
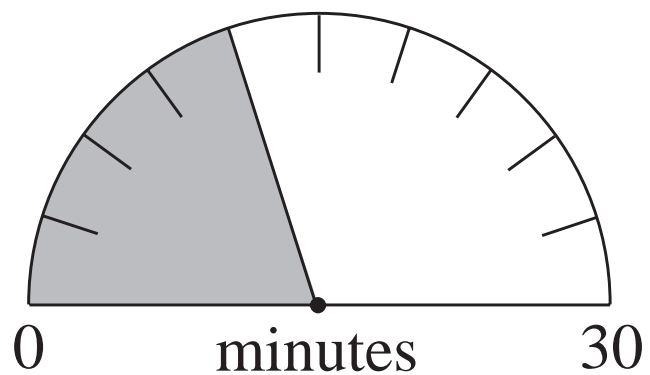
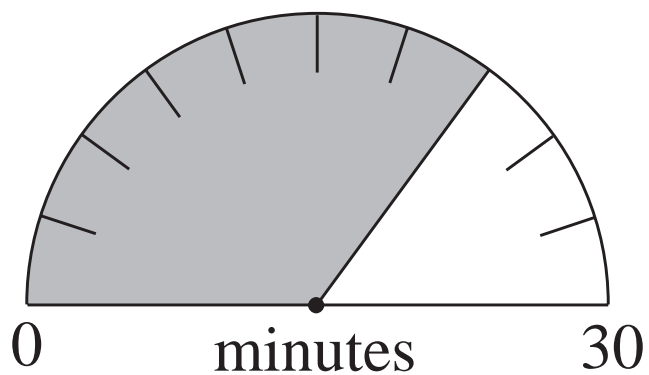
$-1100 \text{ m} \square -2500 \text{ m}$   
 $\square \text{ m}$

$0 \text{ m} \square -402 \text{ m}$   
 $\square \text{ m}$

c)  $42 \text{ m} \square -15 \text{ m}$   
 $\square \text{ m}$

$-637 \text{ m} \square 40 \text{ m}$   
 $\square \text{ m}$

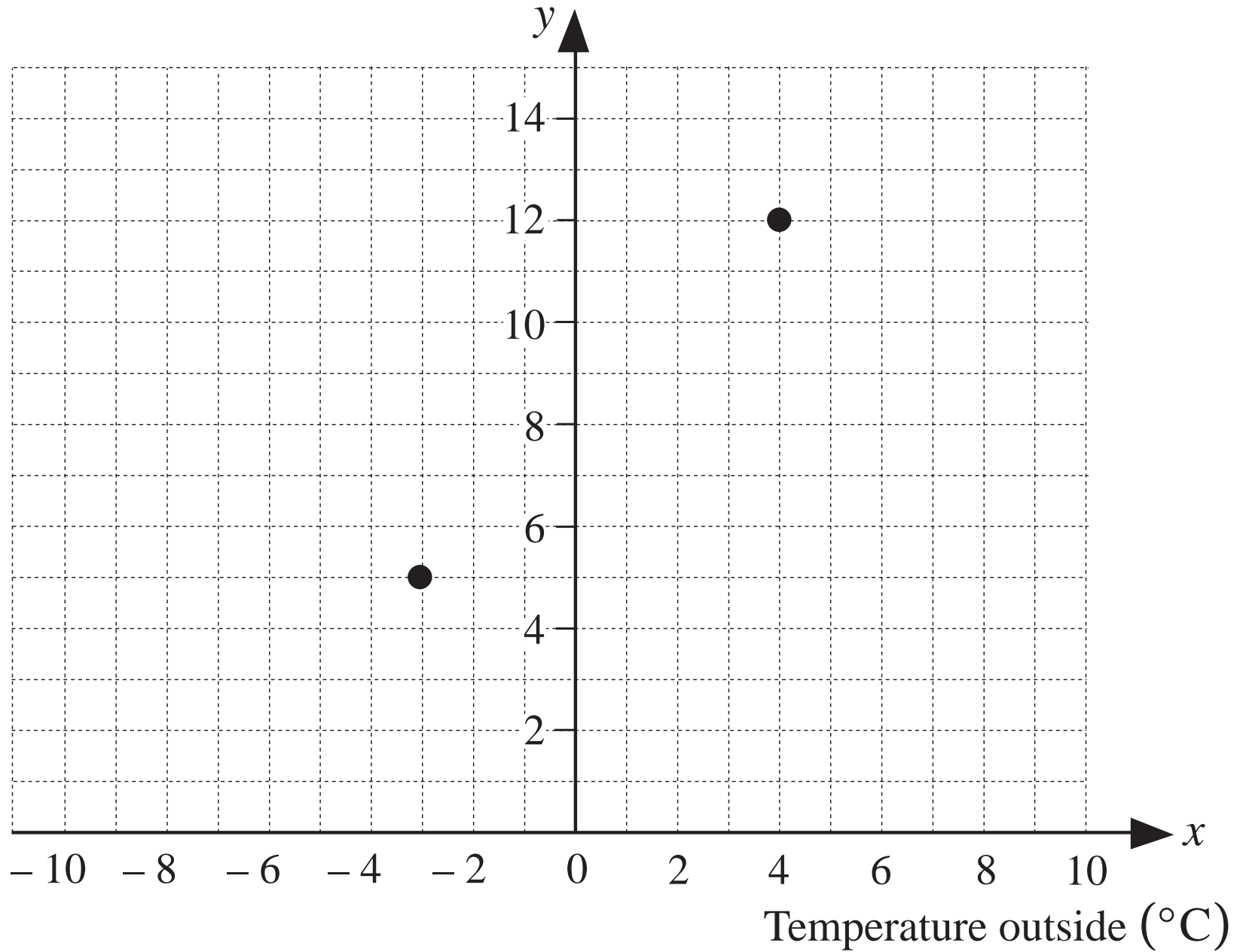
$-18 \text{ m} \square 19 \text{ m}$   
 $\square \text{ m}$

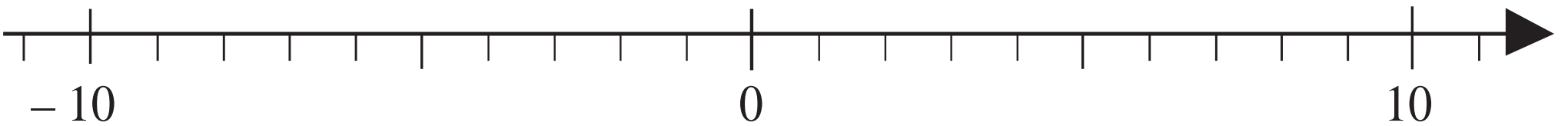
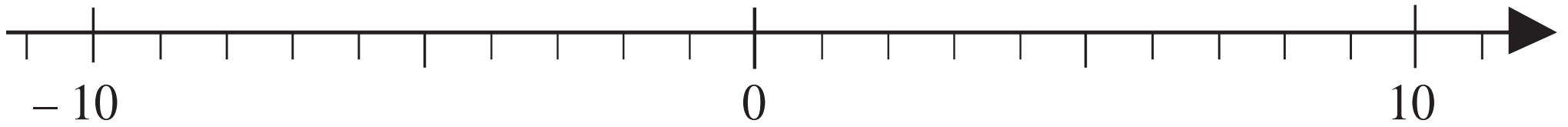
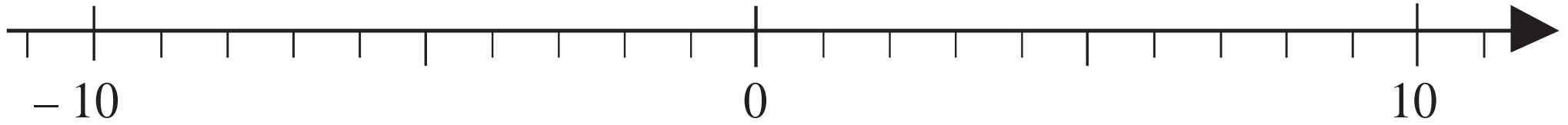


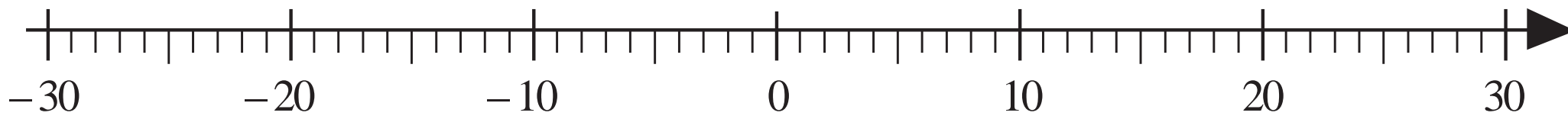
LP 128/2

Temperature outside ( $^{\circ}\text{C}$ )	0	-3	-8	2					5	-4	
Temperature inside ( $^{\circ}\text{C}$ )					1	12	-1	6			0

LP 128/5a

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





LP 129/7i



Make two copies on card, cut out and stick together.



Arrived	25	16	19	15	21	0	18	0	7	22
Departed	18	23	19	0	27	2	23	11	5	10
Change	+ 7									

LP 129/9

a)  $12 \square 6$

b)  $0 \square 7$

c)  $5 \square - 1$

d)  $- 3 \square 6$

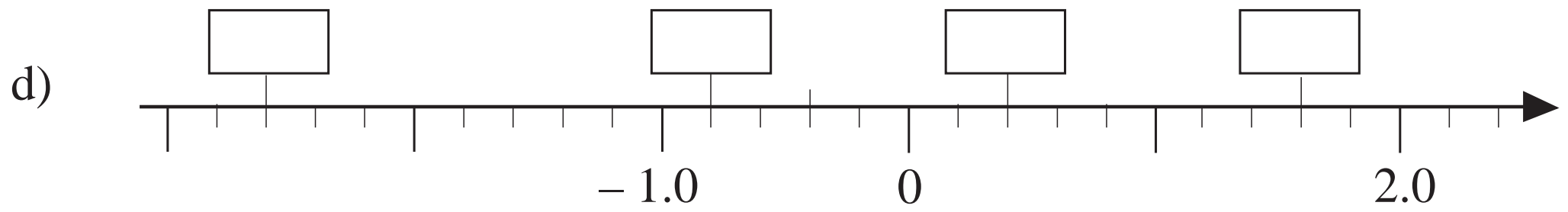
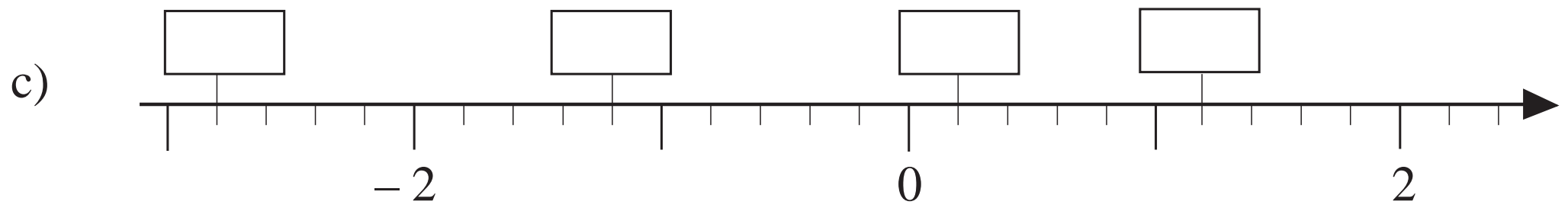
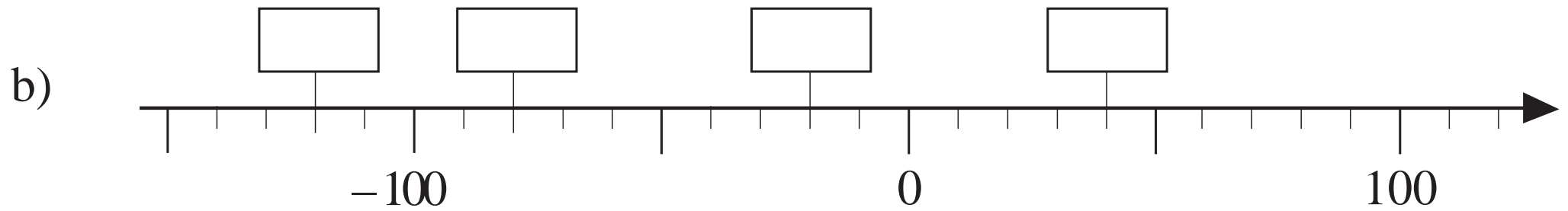
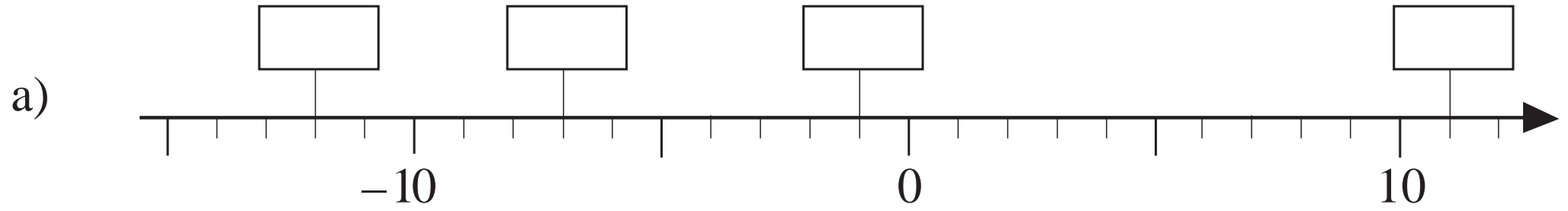
e)  $- 5 \square 0$

f)  $- 4 \square - 9$

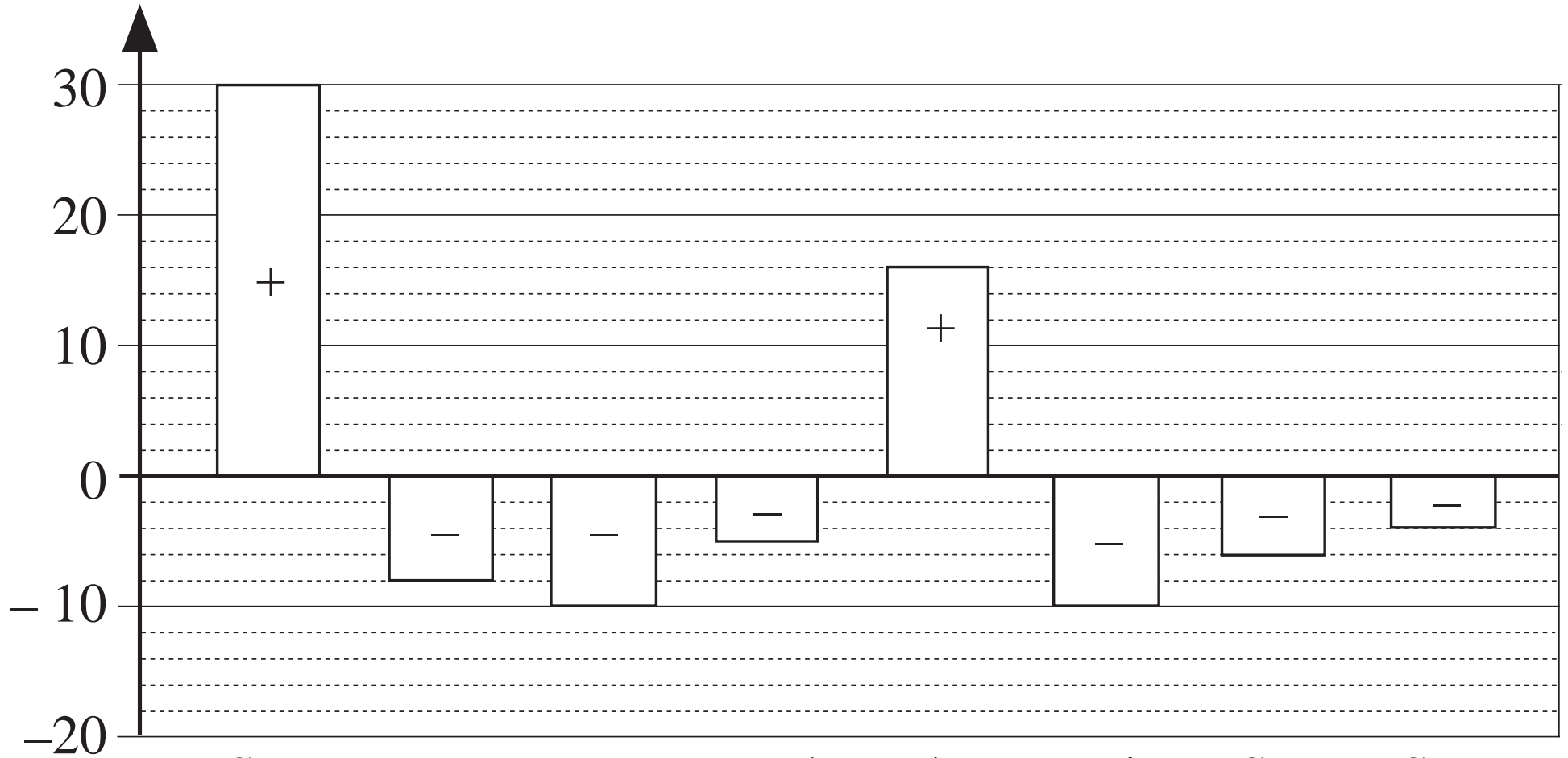
g)  $5 \square - 5$

h)  $- 5 \square - 2$

LP 130/3



Money (£)



Sun

Mon

Tue

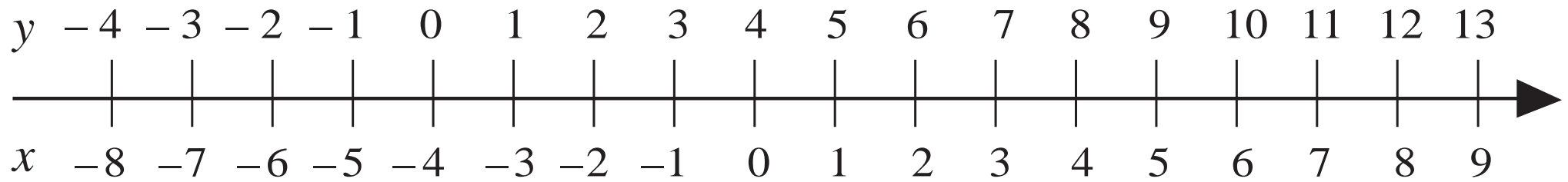
Wed

Thu

Fri

Sat

Sun



$y =$

$x =$

$4 =$

LP 131/6a

a) £0:  $(1)$   $(1)$   $[-1]$   $(1)$

b) £6:  $(1)$   $(1)$   $[-1]$   $(1)$

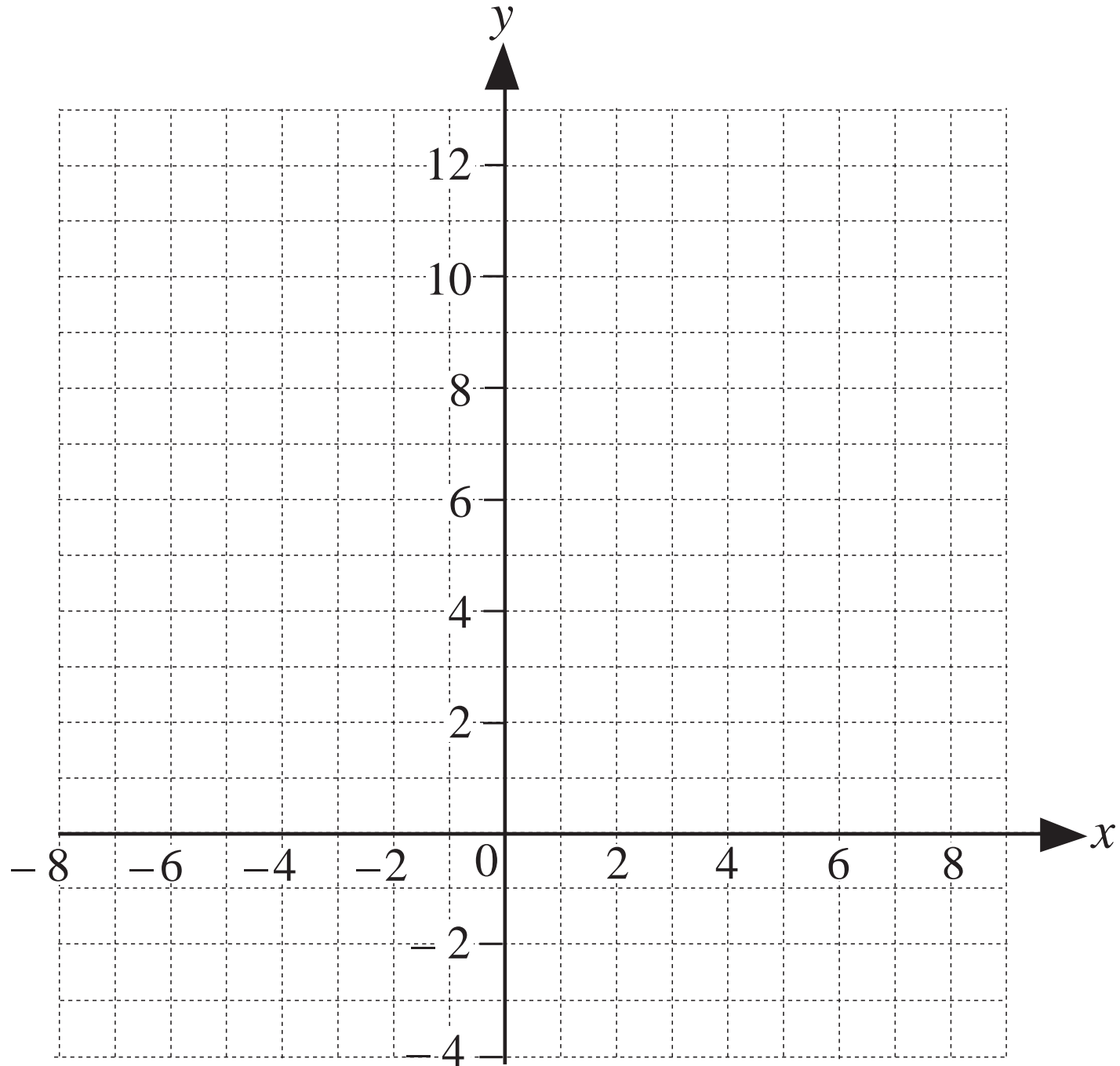
c) -£4:  $[-1]$   $[-1]$   $(1)$

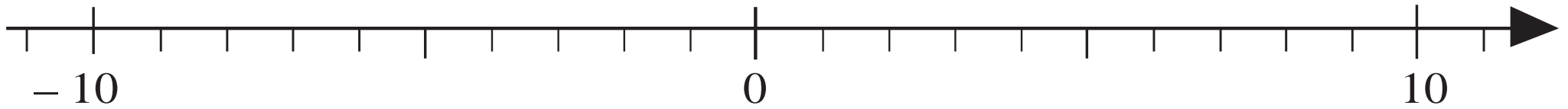
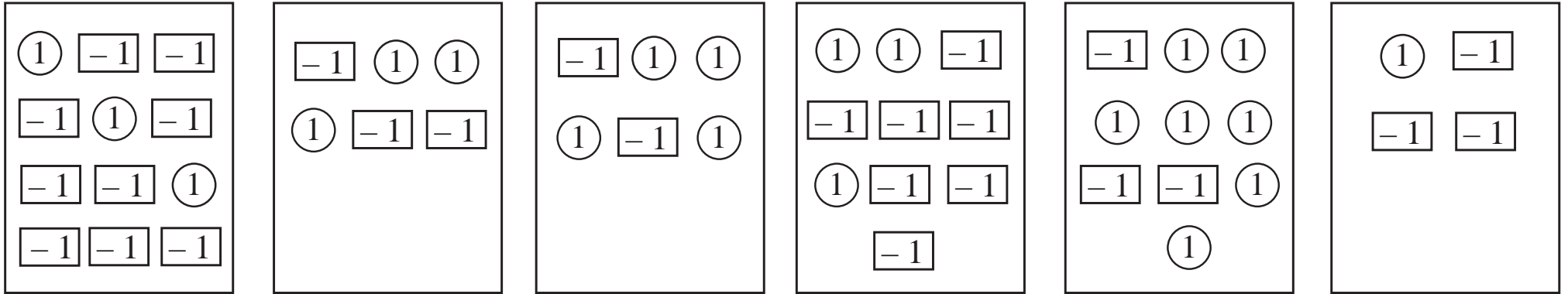
d) -£5:  $[-1]$   $[-1]$   $[-1]$   $[-1]$   $[-1]$   $[-1]$

e) £3:  $[-1]$   $(1)$   $(1)$   $(1)$   $(1)$

f) -£6:  $(1)$   $[-1]$   $(1)$   $[-1]$

LP 131/7





$a$	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
$b$	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7

$$7 + 8 = 15 \quad 6 + 8 = \quad 5 + 8 = \quad 4 + 8 = \quad 3 + 8 = \quad 2 + 8 =$$

$$1 + 8 = \quad 0 + 8 = \quad -1 + 8 = \quad -2 + 8 = \quad -3 + 8 = \quad -4 + 8 =$$

$$-5 + 8 = \quad -6 + 8 = \quad -7 + 8 = \quad -8 + 8 = \quad -9 + 8 = \quad -10 + 8 =$$

*Rule:*  $b =$   $a =$   $8 =$

LP 132/6



LP 132/7

a)  $120 \text{ m} \square - 56 \text{ m}$   
 $\square \text{ m}$

b)  $28 \text{ kg} \square 71 \text{ kg}$   
 $\square \text{ kg}$

c)  $-\text{£}420 \square - \text{£}310$   
 $\text{£} \square$

d)  $-710 \text{ m} \square - 29 \text{ m}$   
 $\square \text{ m}$

e)  $-31^{\circ}\text{C} \square + 14^{\circ}\text{C}$   
 $\square^{\circ}\text{C}$

f)  $0 \text{ m} \square - 310 \text{ m}$   
 $\square \text{ m}$

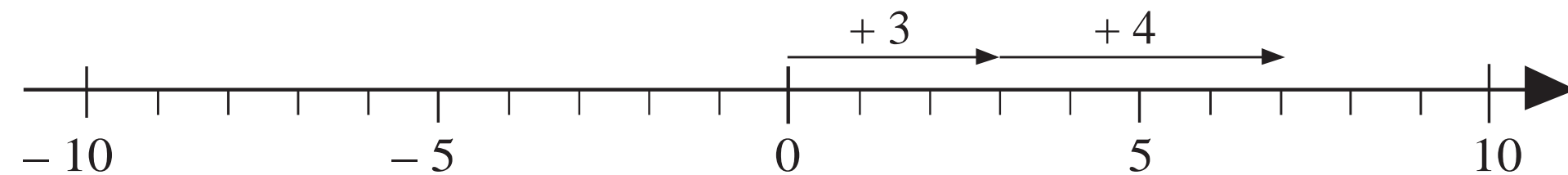




Total

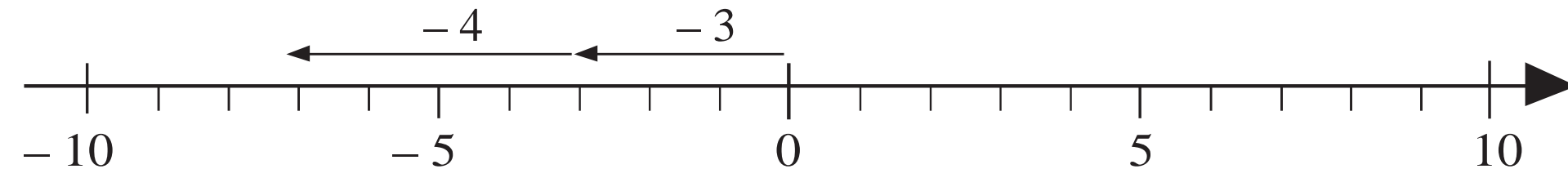
Income	300	520	450	730	240	430	0	
Outgoings	200	600	450	680	320	0	230	
Balance								

a)



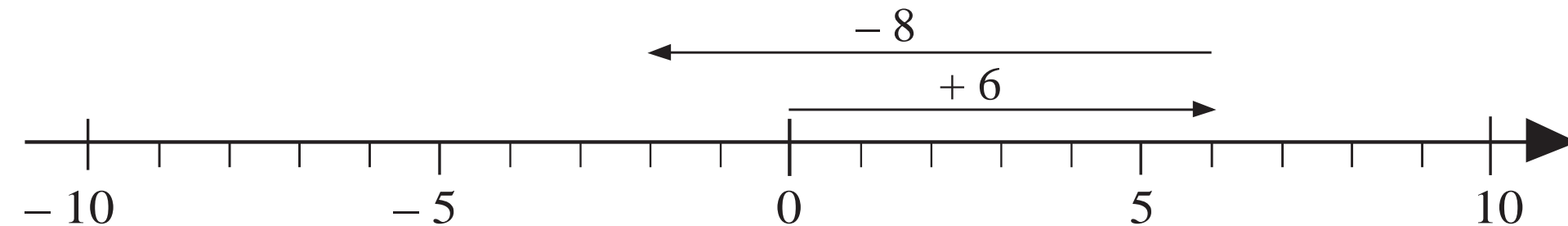
$$+ 3 + 4 = \boxed{\phantom{00}}$$

b)



$$- 3 - 4 = \boxed{\phantom{00}}$$

c)



$$\boxed{\phantom{0000}}$$

a) £0:  $\textcircled{1} \textcircled{1} \textcircled{1} \boxed{-1}$

---

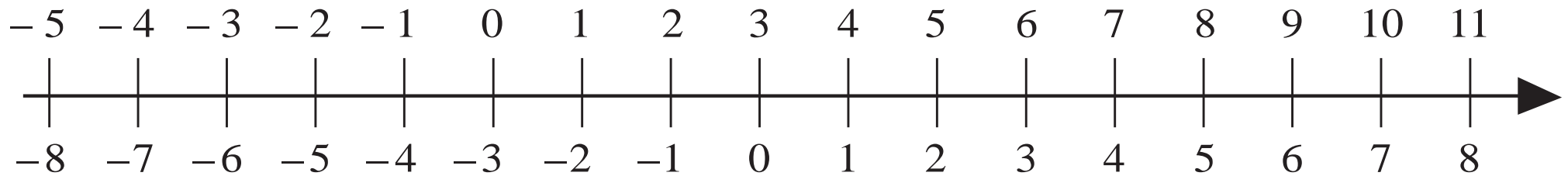
b) - £6:  $\textcircled{1} \boxed{-1} \boxed{-1}$

---

c) £4:  $\boxed{-1} \textcircled{1} \boxed{-1}$

---

d) - £3:  $\textcircled{1} \textcircled{1}$

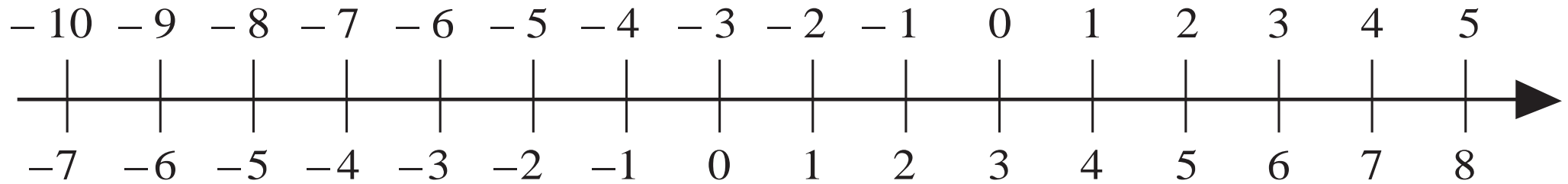


$$3 + 2 = \quad 3 + (-2) = \quad 3 + (-6) = \quad -2 + 3 =$$

$$3 + 1 = \quad 3 + (-3) = \quad 3 + (-7) = \quad -5 + 3 =$$

$$3 + 0 = \quad 3 + (-4) = \quad 3 + (-8) = \quad 0 + 3 =$$

$$3 + (-1) = \quad 3 + (-5) = \quad 3 + (-9) = \quad 2 + 3 =$$



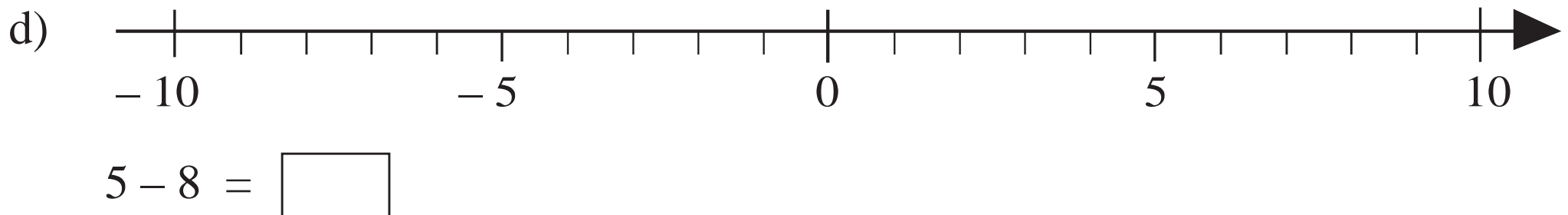
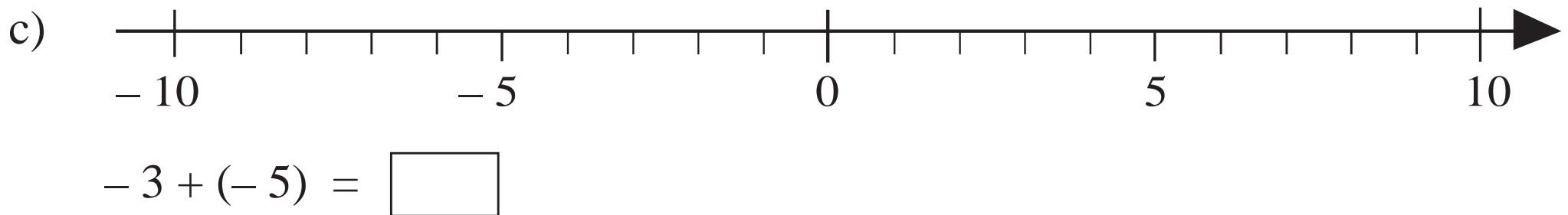
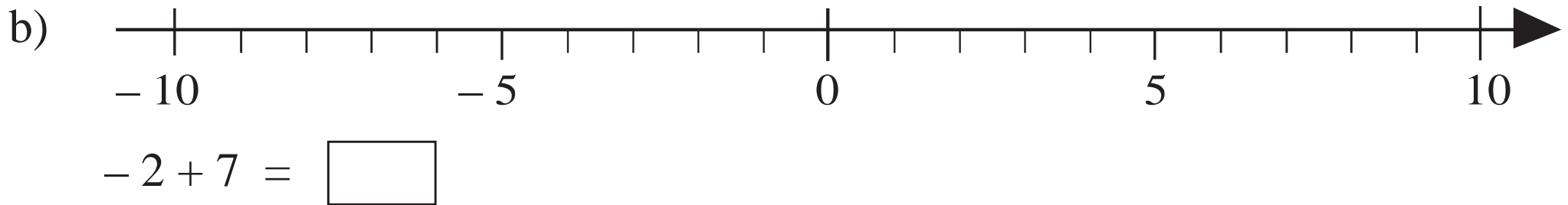
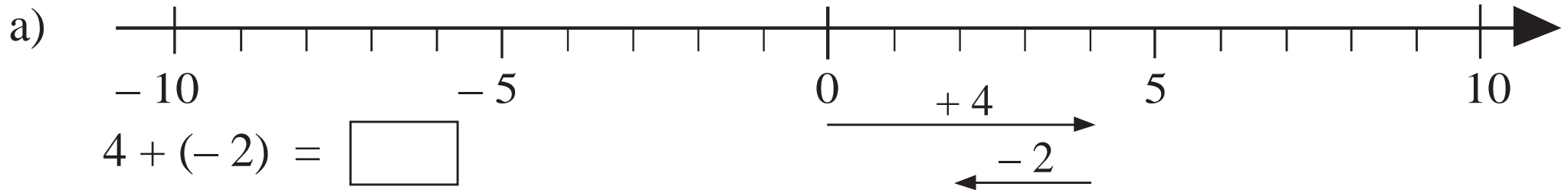
$$-3 + (-7) = \quad -3 + (-3) = \quad -3 + 1 = \quad -3 + 5 =$$

$$-3 + (-6) = \quad -3 + (-2) = \quad -3 + 2 = \quad -3 + 6 =$$

$$-3 + (-5) = \quad -3 + (-1) = \quad -3 + 3 = \quad -3 + 7 =$$

$$-3 + (-4) = \quad -3 + 0 = \quad -3 + 4 = \quad -3 + 8 =$$

- a)  $8^{\circ}\text{C}$  is greater than  $3^{\circ}\text{C}$  by  $5^{\circ}\text{C}$ .  $8 - 3 = 5$ ,  $5 + 3 = 8$
- b)  $3^{\circ}\text{C}$  is  than  $8^{\circ}\text{C}$  by  $5^{\circ}\text{C}$ .  $3 - 8 = \text{input}$ ,  $\text{input} + 8 = 3$
- c)  $8^{\circ}\text{C}$  is greater than  $0^{\circ}\text{C}$  by   $8 - 0 = \text{input}$ ,  $\text{input} + 0 = 8$
- d)  $3^{\circ}\text{C}$  is greater than  $-2^{\circ}\text{C}$  by   $3 - (-2) = \text{input}$ ,  $\text{input} + (-2) = 3$
- e)  $-2^{\circ}\text{C}$  is less than  $3^{\circ}\text{C}$  by   $-2 - 3 = \text{input}$ ,  $\text{input} + 3 = -2$
- f)  $-2^{\circ}\text{C}$  is  than  $-5^{\circ}\text{C}$  by  $3^{\circ}\text{C}$ .  $-2 - (-5) = \text{input}$ ,  $\text{input} + (-5) = -2$



$$\square < 4.3 < \square$$

$$\square < 12\frac{1}{3} < \square$$

$$\square < 0.2 < \square$$

$$\square < 7 + \frac{4}{5} < \square$$

$$\square < \frac{9}{11} < \square$$

$$\square < \frac{9}{4} < \square$$

$$\square < 61 + \frac{3}{2} < \square$$

$$\square < \frac{11}{5} - \frac{2}{5} < \square$$

$$\square < 100.1 < \square$$

$$\square < 3.99 < \square$$

$$\square < -\frac{4}{5} < \square$$

$$\square < -2.5 < \square$$



$$20 \leq n \leq 70$$

21 22 24 26

27 28 30 32 33 34 35

A

23 29 31

B

25

36

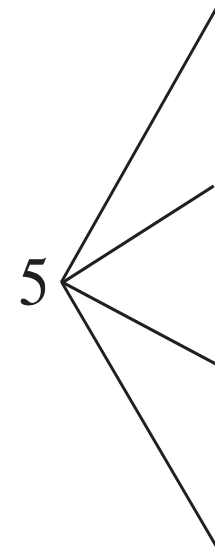
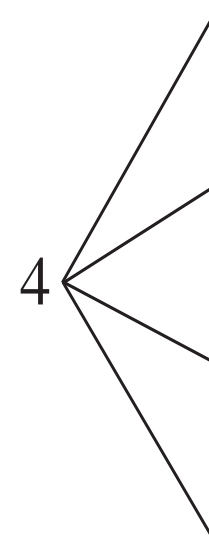
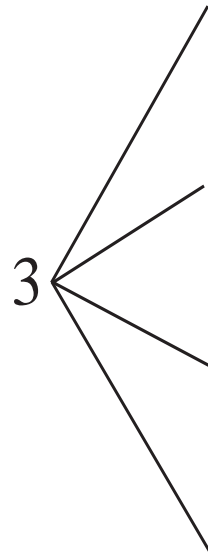
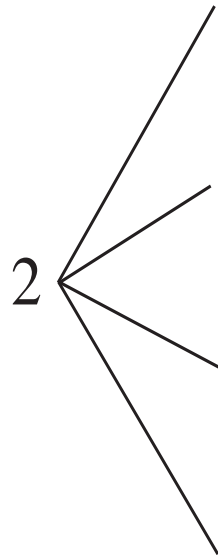
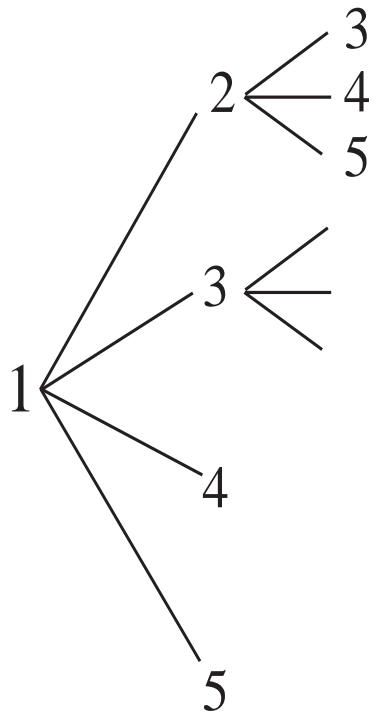
123, 124, 125, 132, .....

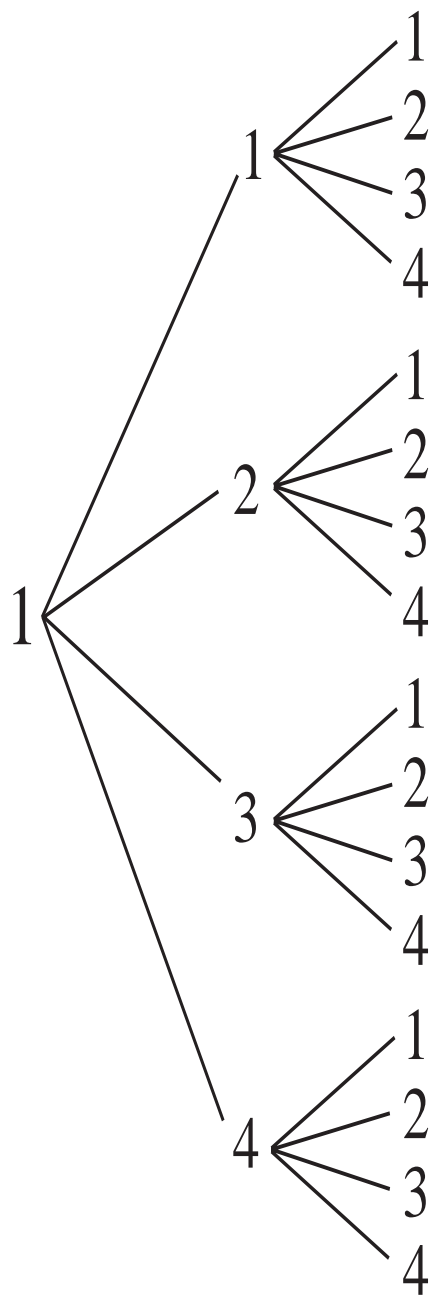
213, 214, 215, .....

312, 314, .....

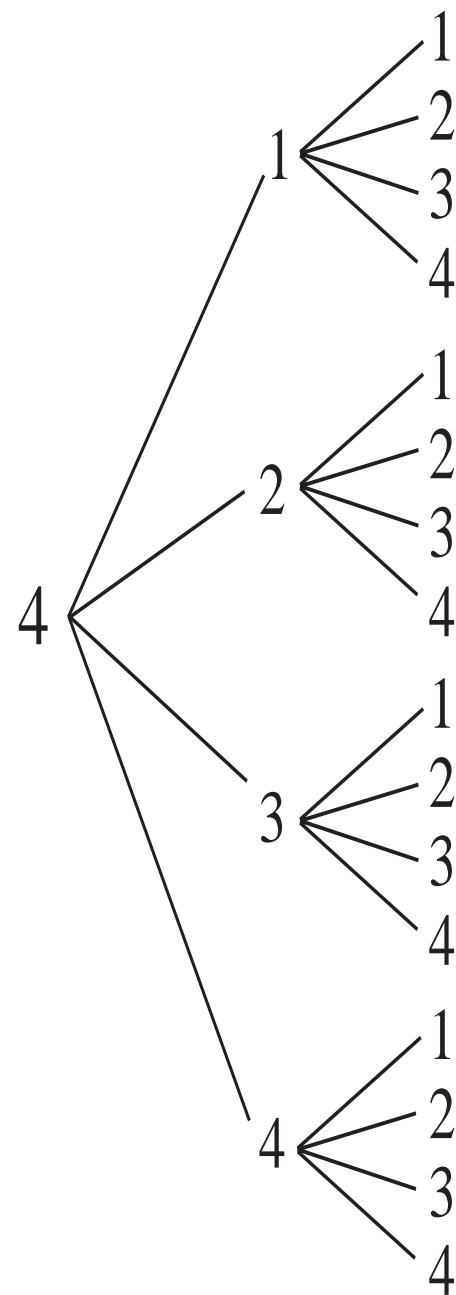
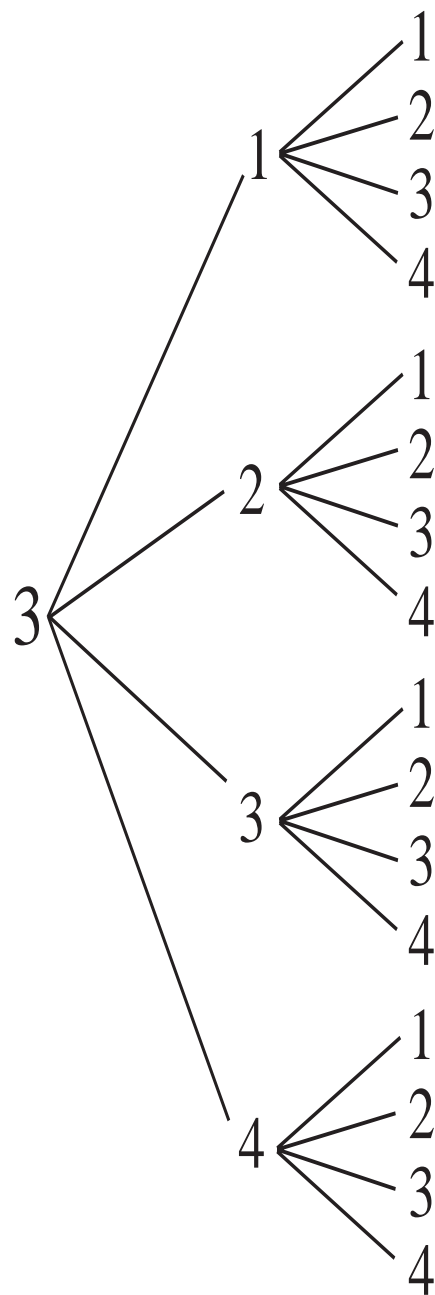
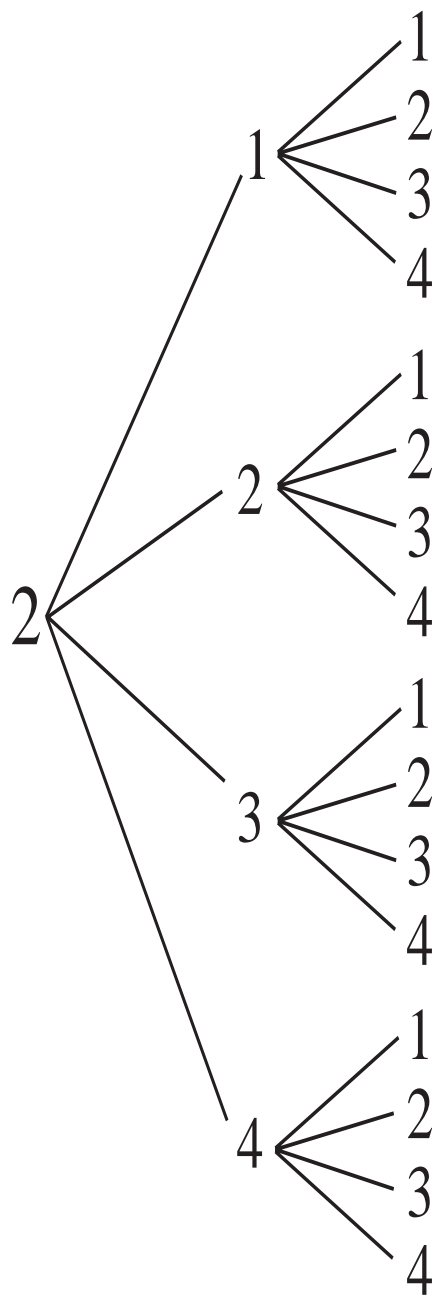
412, .....

512, .....

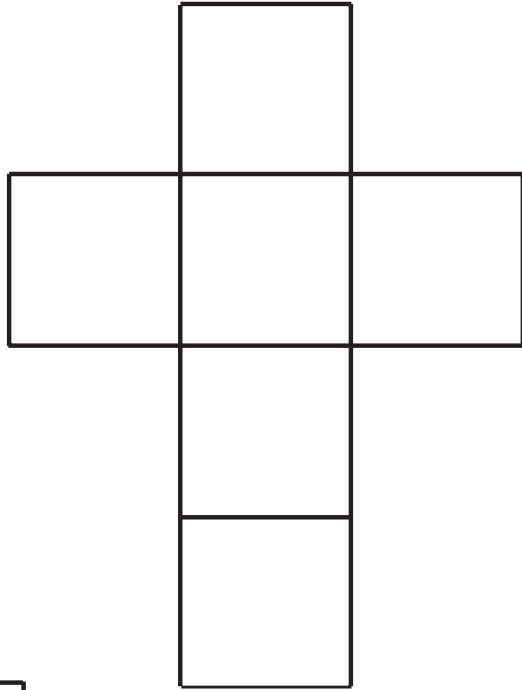




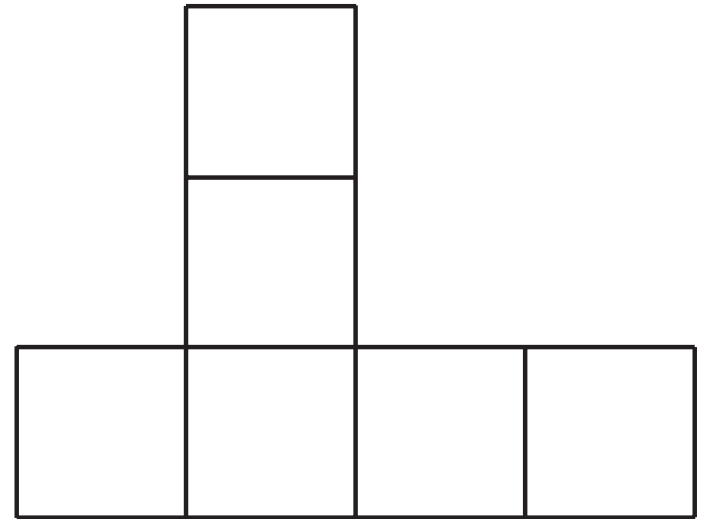
Solution



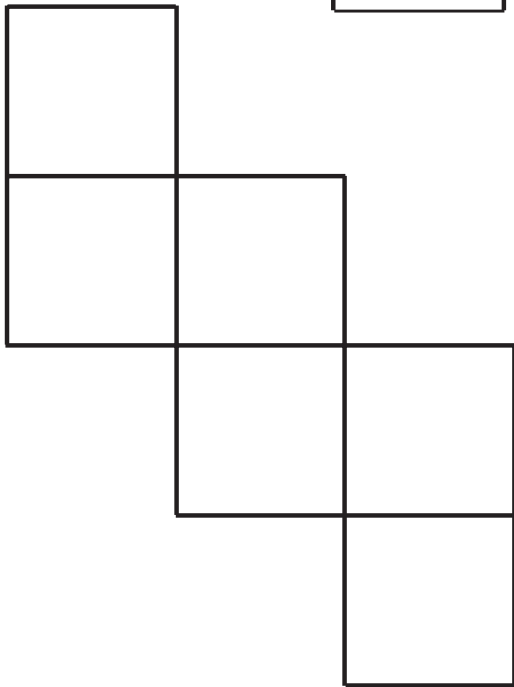
a)



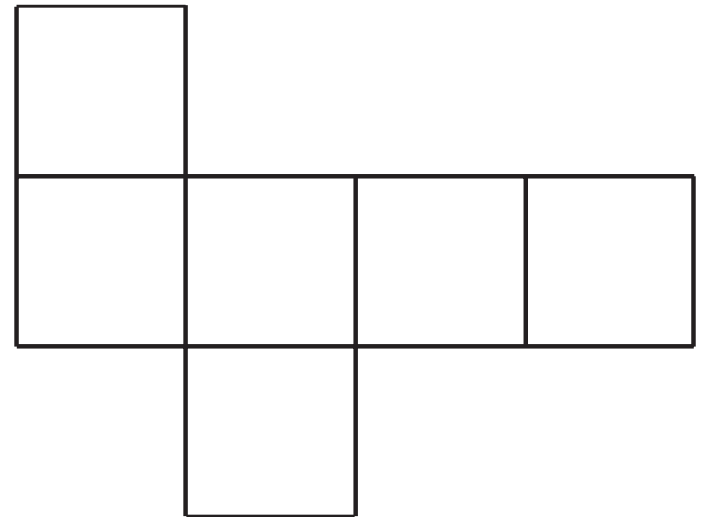
b)



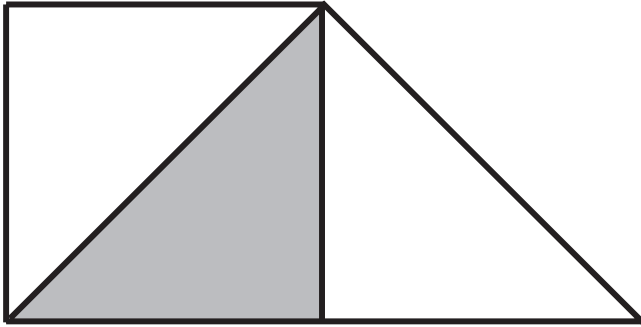
c)



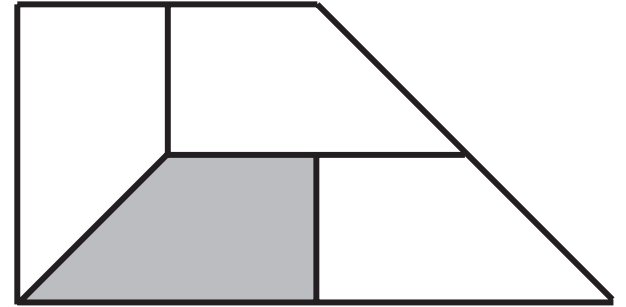
d)



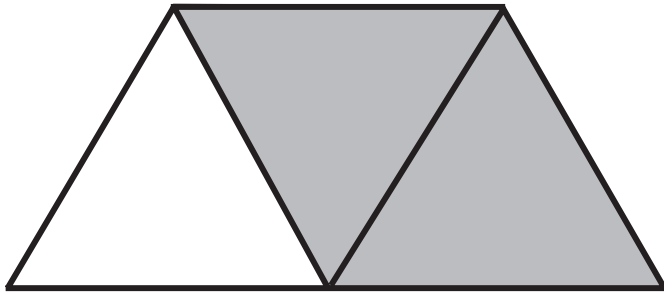
a)



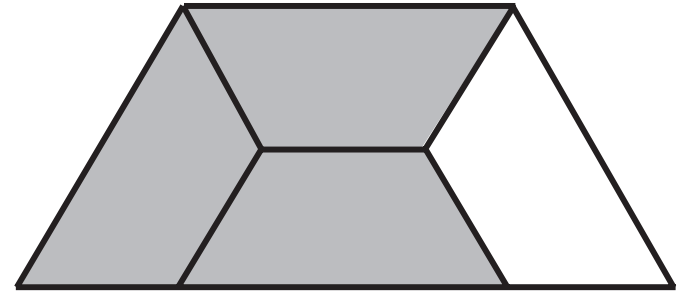
b)



c)



d)

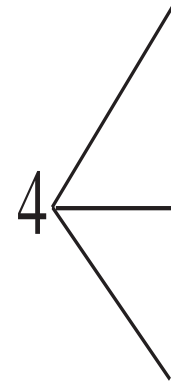
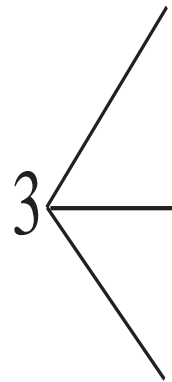
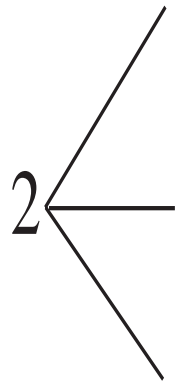
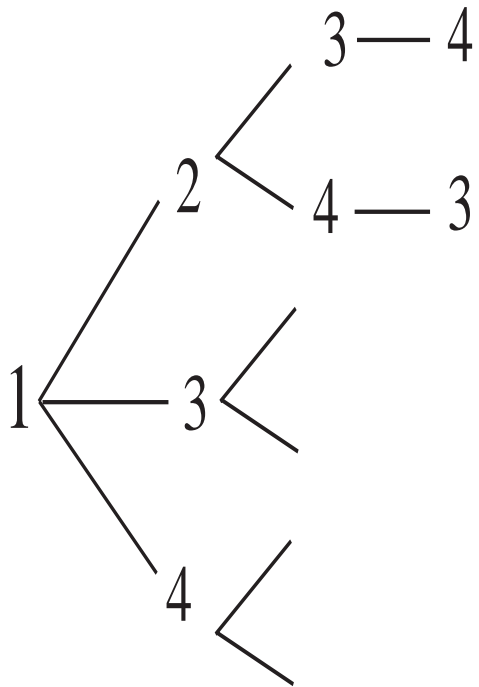


1234, 1243, .....

2134, .....

3124, .....

4123, .....



a)

	8	5	4	6
+	4	1	9	9

b)

	2	1	5	1	0
-		7	4	5	6

c)

	9	3	6	4
			×	4

d)

5	3	7	2	1	0

e)

	7	5	6	2
			×	7

f)

	1	6	5	4	3
-		4	6	6	0

g)

	5	8	0	3
			×	8

h)

1	0	1	0	1	0