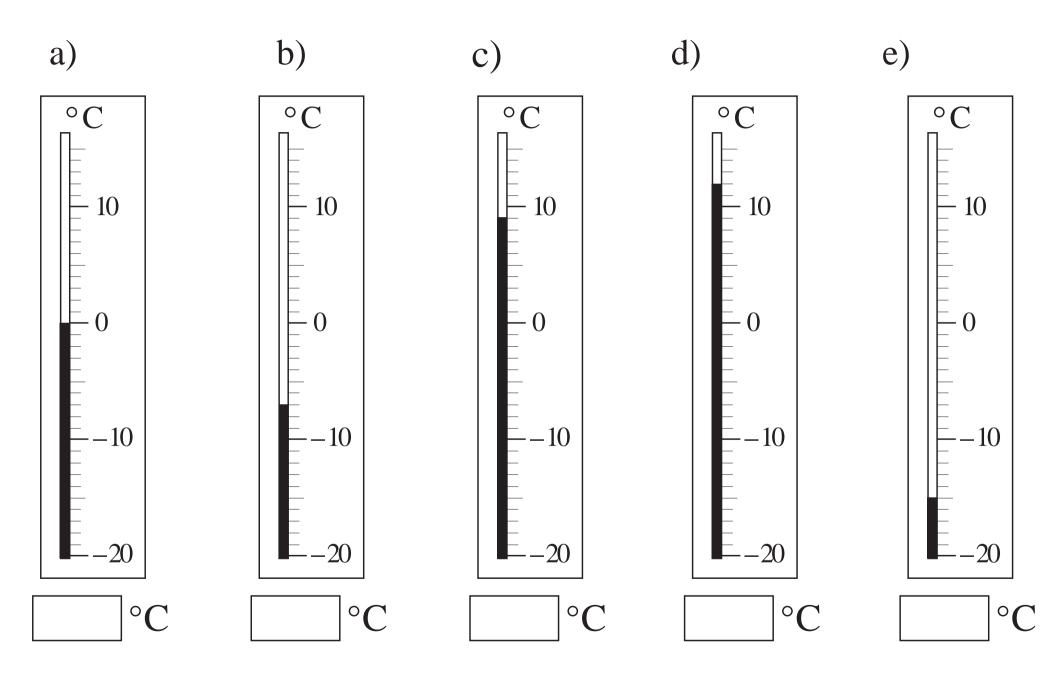
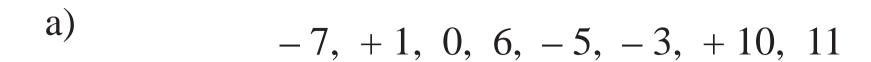
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LP 51/1

mep MEP: Feeder Primary Project: Year 5







b)

$$-7 + 1$$

$$0 \ () \ -5$$

$$-5$$
 () -7 -7 ()

$$-7 () -5$$

$$-5 () 0$$

$$11 \quad \bigcirc \quad 0$$

$$6 \bigcirc -3$$

$$6) + 10$$

$$-7 () -3$$

$$11 \bigcirc \epsilon$$

$$0 \bigcirc -5 -3 \bigcirc$$

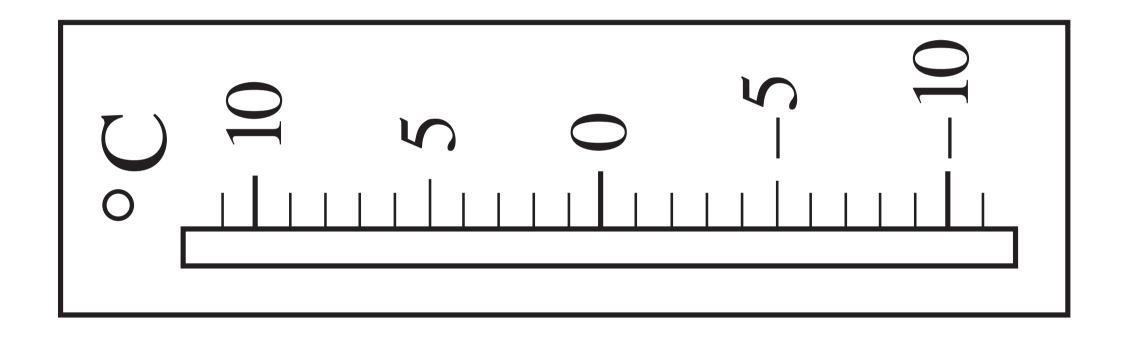
$$-3 () + 10$$

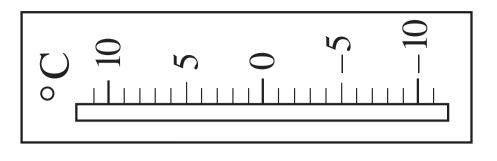


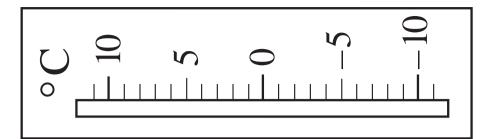


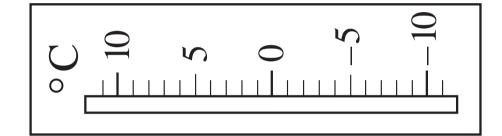
LP 52/1

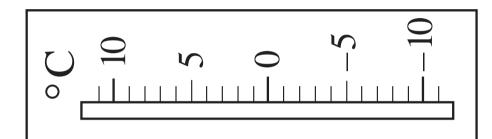
 $\nu =$

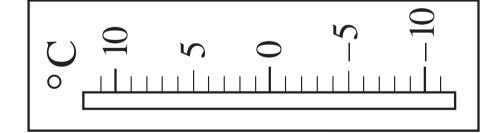


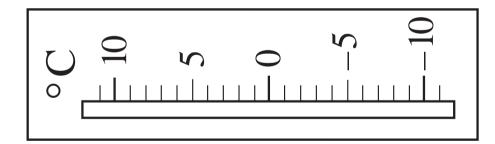


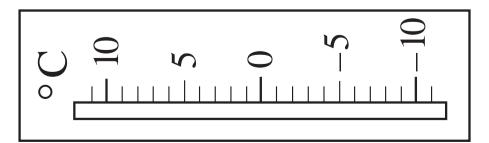


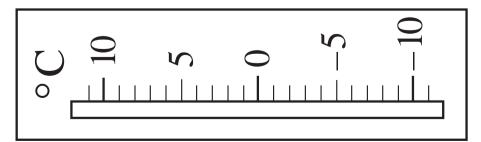






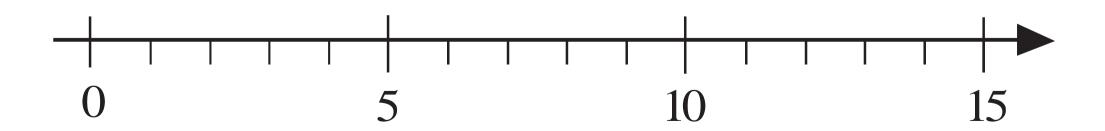


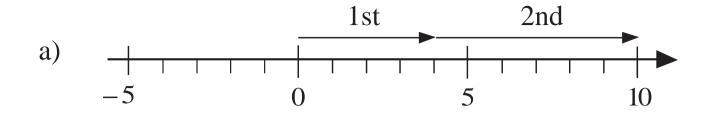


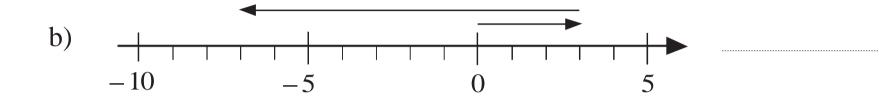


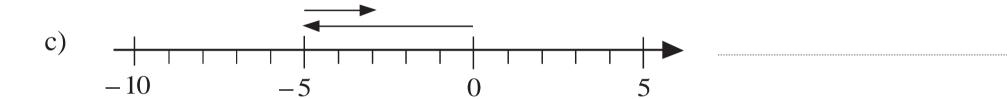


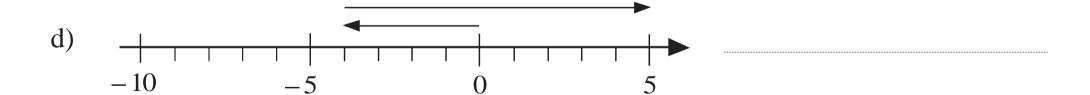
b)

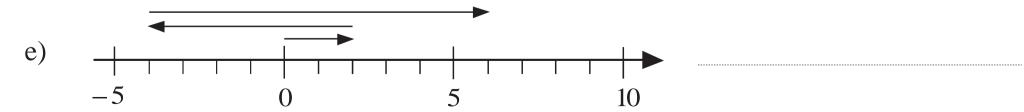












a)
$$5 + \boxed{} = 9$$



b)
$$-7 + \boxed{} = -9$$



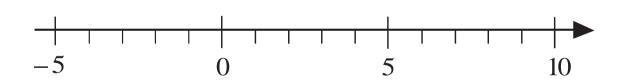
c)
$$+(-3) = -10$$



d)
$$-3 +$$
 $+ (-5) = 2$

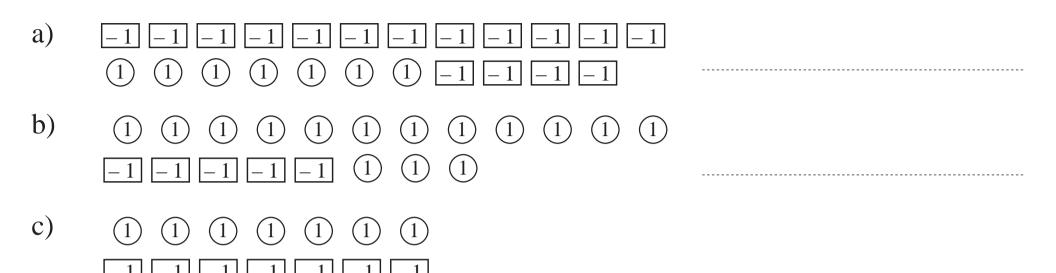


e)
$$5 + (-3) + \boxed{} = 0$$

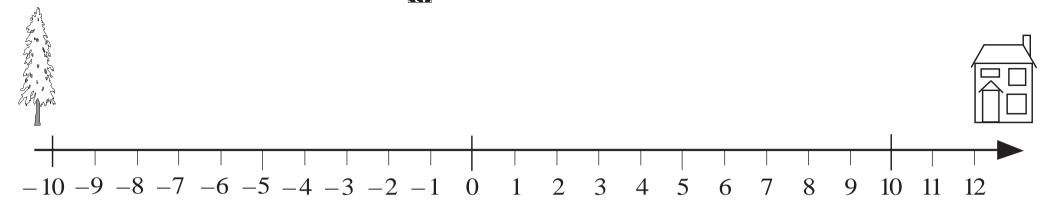


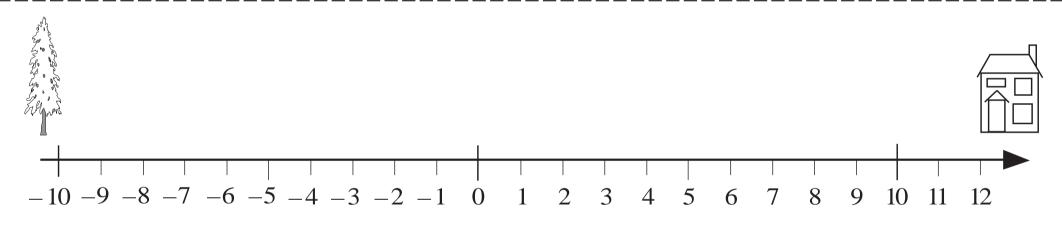
f)
$$3 + (-5) + \boxed{} = 6$$

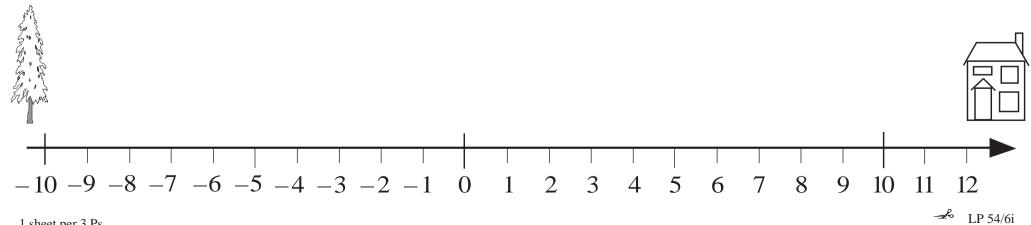


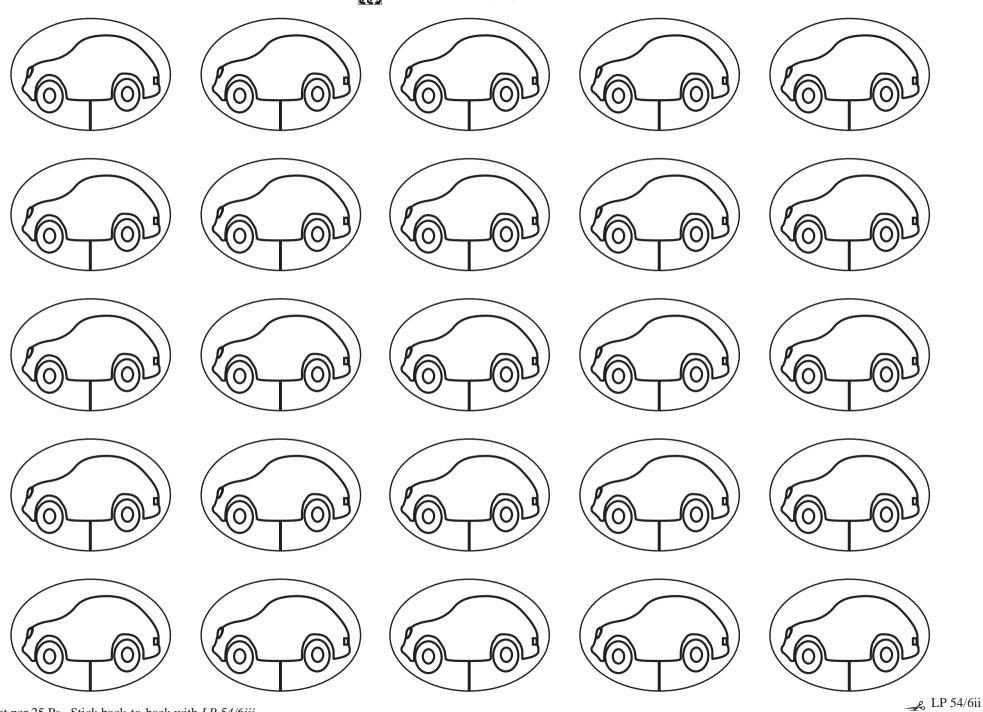


LP 53/5

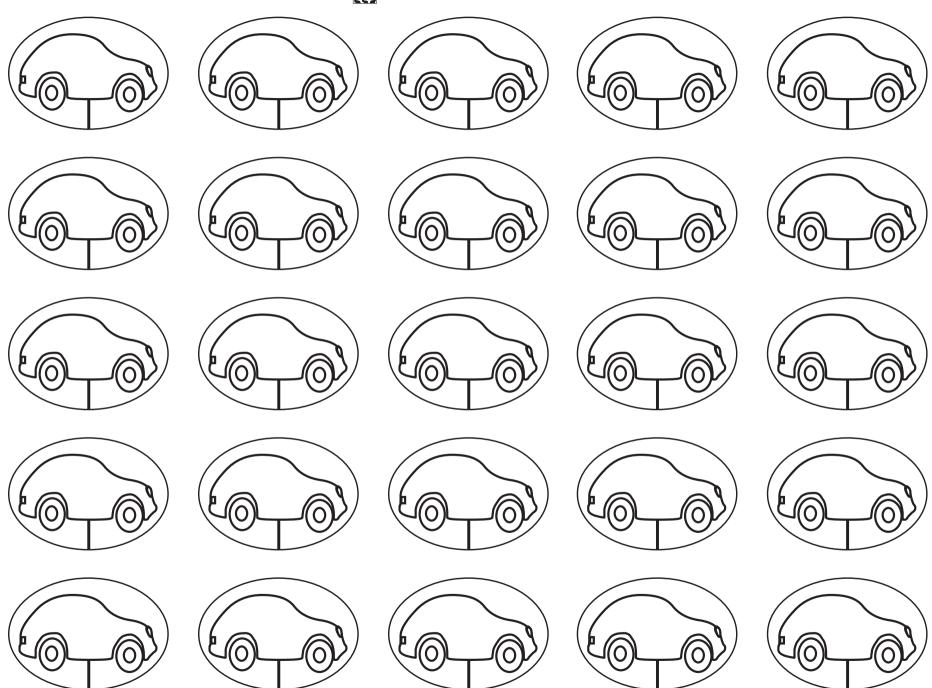




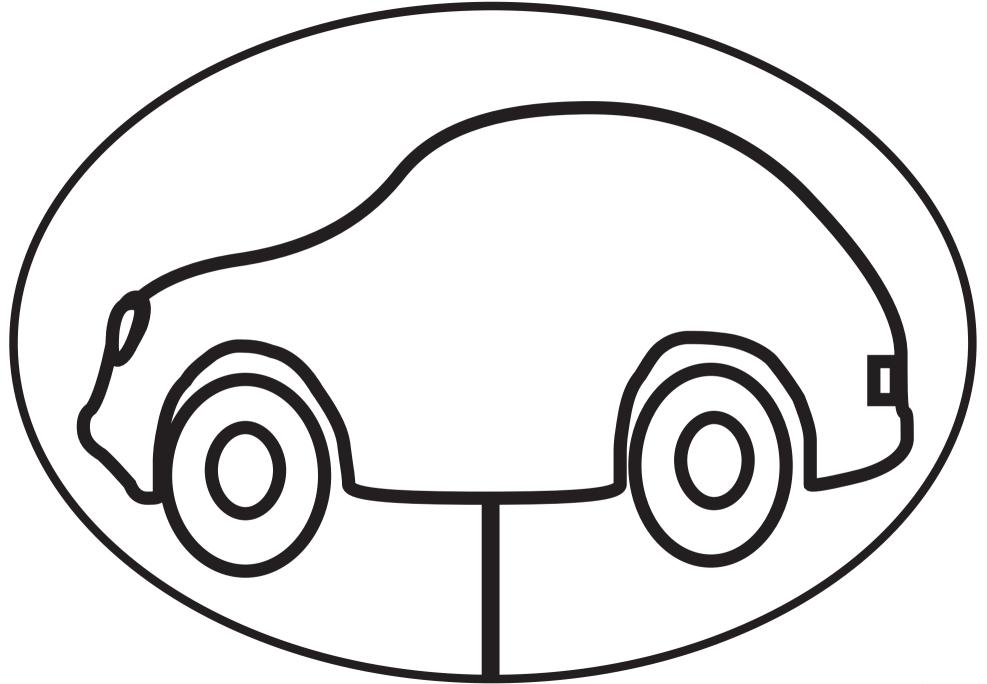




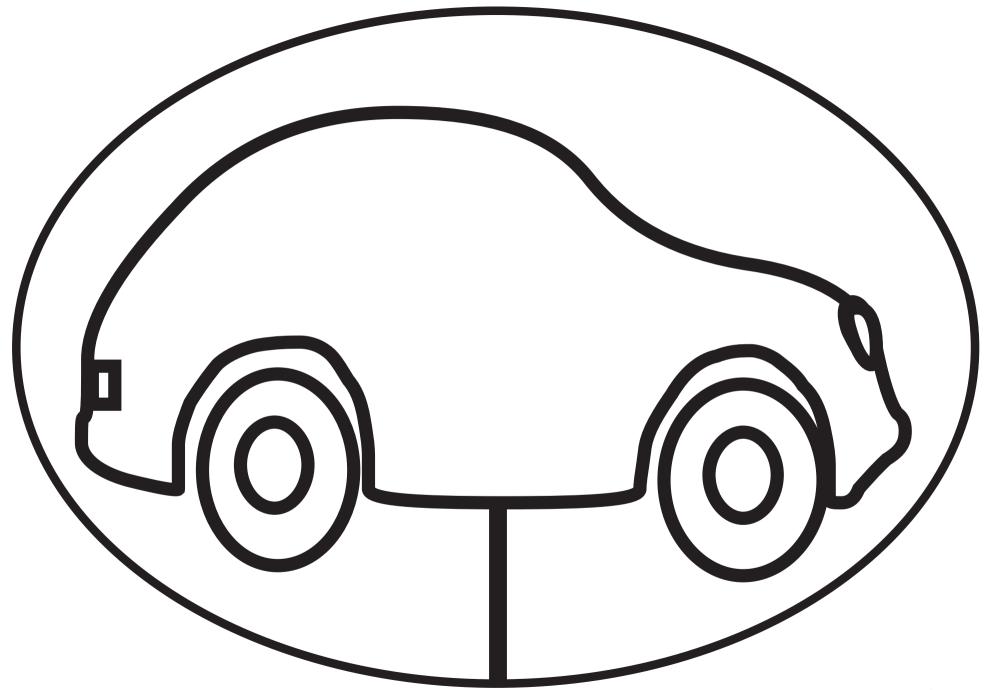
1 sheet per 25 Ps. Stick back-to-back with LP 54/6iii

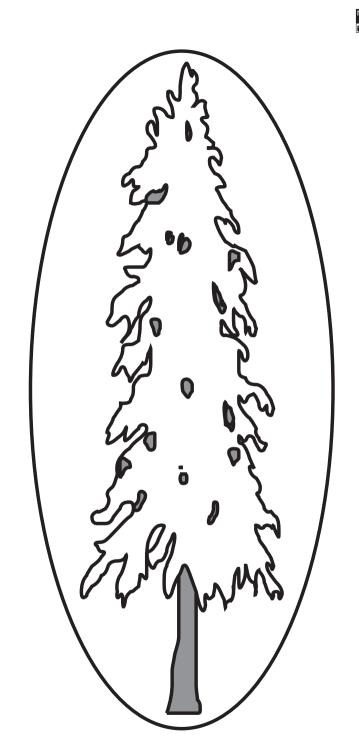


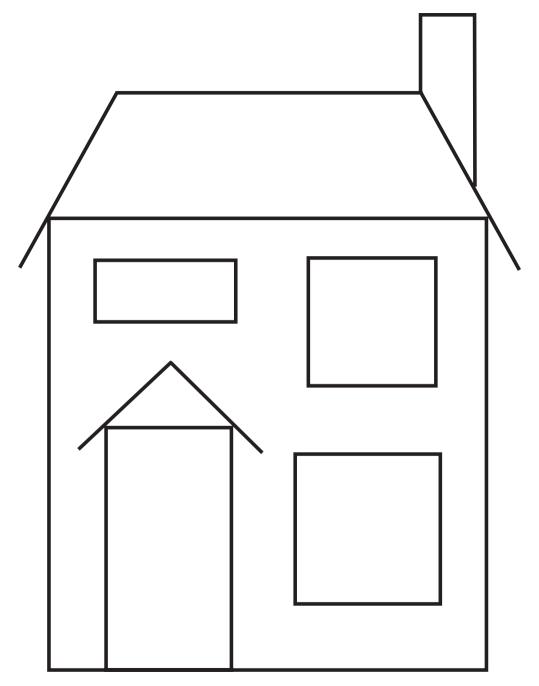
1 sheet per 25 Ps. Stick back-to-back with LP 54/6ii



Stick back-to-back with LP 54/6v







-15 -14 -13 -12 -11 -10 I I I I I I	-9 -8 1 1			5 –4 I I					1	2 I	3	4	5 	6 1	7 I	8	9 1	10 	11 	12 	13 	14 I	15
-15 -14 -13 -12 -11 -10		 -7	 -6 -	1 I 5 –4	-3	1 -2	 -1	0	1	2	3	4	5	1 6	7	8	9	10	1 11	12	1 13	1 14	1 15
-15 -14 -13 -12 -11 -10 I I I I I				5 –4 I I				0	1	2	3	4 I	5 I	6 	7 I	8	9	10	11 	12 	13 		15
-15 -14 -13 -12 -11 -10		 -7	 -6 -	I I 5 −4	-3	1 -2	 -1	0	1	2	3	4	5	1 6	1 7	8	9	10	1 11	1 12	13	1 14	1 15
-15 -14 -13 -12 -11 -10 1 1 1 1 1	-9 -8 I I	-7 I	-6 - I		-3 1			0	1 	2	3	4	5 I	6 I	7 I	8	9 	10 	11 	12 	13 	14 I	15
-15 -14 -13 -12 -11 -10		 -7	 -6 -	I I 5 −4	-3	-2	 -1	0	1	2	3	4	5	6	7	8	9	10	1 11	1 12	13	1 14	15
-15 -14 -13 -12 -11 -10	-9 -8 1 1	_	-6 - I		-3 I			0	1 	2 I	3	4	5 I	6 I	7 I	8 I	9 1	10	11 	12 	13 	14 	15
-15 -14 -13 -12 -11 -10	 -9 -8	 -7	 -6 -	5 –4	-3	-2	 -1	0	1	2	3	4	5	6	T 7	8	9	10	1 11	12	13	1 14	15
-15 -14 -13 -12 -11 -10 I I I I I	-9 -8 1 1		-6 - I	5 –4 I I	-3 I	-2 I	-1 I	0	1	2	3	4	5 I	6 1	7 I	8	9	10	11 	12 	13 	14 	15
-15 -14 -13 -12 -11 -10		1 -7	 -6	T T 5 -4	-3	 -2	 -1	0	1	1 2	3	1 4	T 5	T 6	T 7	T 8	 	10	 11	12	13	T 14	15

Copy onto card. 1 sheet per 5 Ps.

$$(+5) + (+6) = 11$$

$$(+5) + (+1) =$$

$$(+5) + (-4) =$$

$$(+5) + (+5) =$$

$$(+5) + 0 =$$

$$(+5) + (-5) =$$

$$(+5) + (+4) =$$

$$(+5) + (-1) =$$

$$(+5) + (-6) =$$

$$(+5) + (+3) =$$

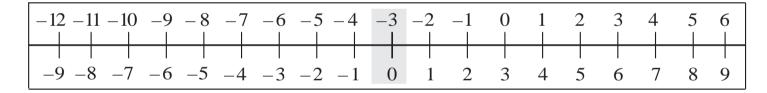
$$(+5) + (-2) =$$

$$(+)5 + (-7) =$$

$$(+5) + (+2) =$$

$$(+5) + (-3) =$$

$$(+5) + (-8) =$$



$$(-3) + (+5) =$$

$$(-3) + 0 =$$

$$-3 + (-5) =$$

$$(-3) + (+4) =$$

$$(-3) + (-1) =$$

$$-3 + (-6) =$$

$$(-3) + (+3) =$$

$$(-3) + (-2) =$$

$$-3 + (-7) =$$

$$(-3) + (+2) =$$

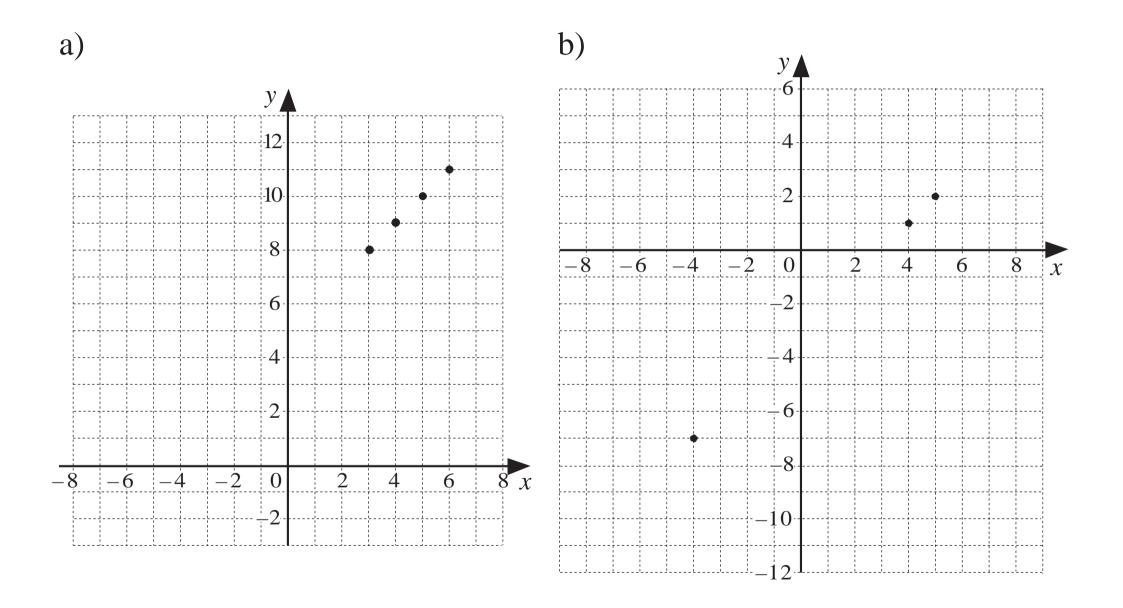
$$(-3) + (-3) =$$

$$-3 + (-8) =$$

$$(-3) + (+1) =$$

$$(-3) + (-4) = \boxed{-7}$$

$$-3 + (-9) =$$



+	- 3	-2	- 1	0	+ 1	+ 2	+ 3
- 3	-6						
-2						0	+ 1
- 1							
0					+ 1	+ 2	+ 3
+ 1					+ 2	+ 3	+ 4
+ 2							
+ 3		+ 1					

a)
$$+3+(-1) =$$

b)
$$-1 + (-2) =$$

c)
$$-3 + (-2) =$$

d)
$$+3+(-3) =$$

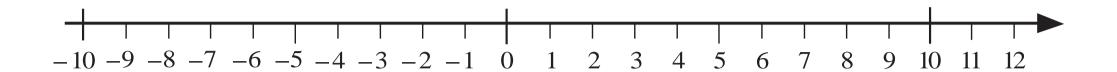
e)
$$0 + (-3) =$$

f)
$$+2+(-3) =$$

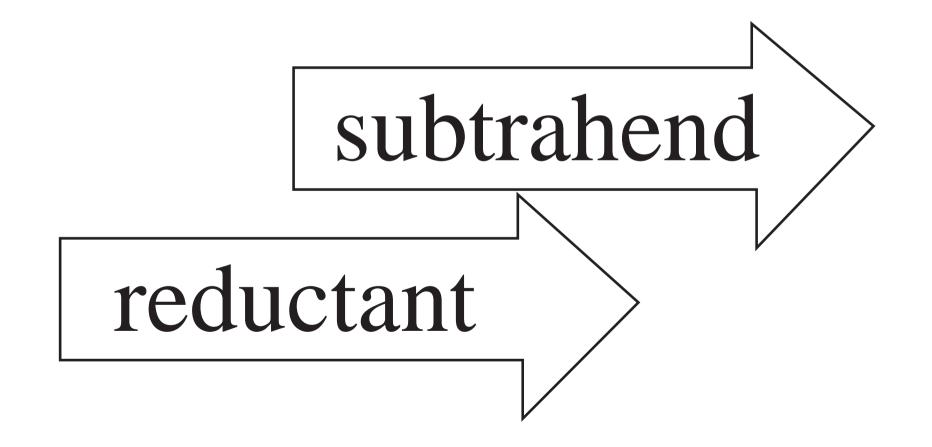
g)
$$-1+0 =$$



LP 55/3



LP 56/5i



____ LP 56/5ii

10	a)	3°C	is greater than -6° C	by °C
— 10 — 9		So	3 - (-6) = 9	<i>Check:</i> $9 + (-6) = 3$
8765	b) -	-6°C So	is less than 3°C	by °C Check:
- 4 - 3 - 2 - 1	c)	4 So	is less than 7	by
— 0 — -1 — -2	d)	7 So	is greater than 4	by Check:
3 4 5 6	e)	- 8 So	is less than -2	by Check:
7 8	f) -	- 2	is greater than -8	by

Check:

a) Sue's starting balance was £2, as she had £5 in cash and was £ in debt. Then she spent £5.

How much is her balance now?

- b) Rob's starting balance was £3, as he had £ in cash and was £5 in debt. Then he spent £2.

 How much is his new balance?
- Billy's starting balance was -£3, as he had £1 in cash and was £ in debt. Then £4 of his debts were cancelled.

How much is his balance now?

d) Mary's starting balance was £ , as she had £5 in cash and was £3 in debt. Then £3 of her debts were repaid.

What is her balance now?

a)
$$(+8) - (+2) =$$



b)
$$(-8) - (-2) =$$

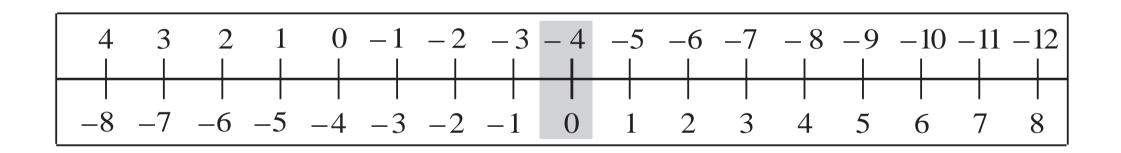
c)
$$(+2) - (+8) =$$

d)
$$(-2) - (-8) =$$

e)
$$(+4) - (+3) =$$

f)
$$(-4)-(-3) =$$

LP 58/8



a)
$$(+3) + (-1) =$$

b)
$$(+3) + (-5) =$$

c)
$$(+3) + (+2) =$$

d)
$$(+3) + 0 =$$

e)
$$(-4) + (+1) =$$

f)
$$(-4) + (+6) =$$

$$(-4) + (-3) =$$

h)
$$(-4) + 0 =$$

i)
$$0 + (+2) =$$

$$j) 0 + (-3) =$$

$$(+3) - (+1) =$$

1)
$$(+3) - (+5) =$$

m)
$$(+3) - (-2) =$$

n)
$$(+3) - 0 =$$

o)
$$(-4) - (-1) =$$

p)
$$(-4) - (-6) =$$

q)
$$(-4)-(+3) =$$

r)
$$(-4) - 0 =$$

s)
$$0 - (-2) =$$

t)
$$0 - (+3) =$$

a	8	7	6			3	2				-2	-3	-4
b	5	4		2	1			-2	-3	-4			

Rule:

b)

\mathcal{X}	5	-1	2	0		7		3	-40		8		
y	-2	4	1		-3	_	100			11		6	8.5

Rule:

$$(+4) - (+6) =$$

$$(+4) - (+5) =$$

$$(+4) - (+4) = 0$$

$$(+4) - (+3) = +1$$

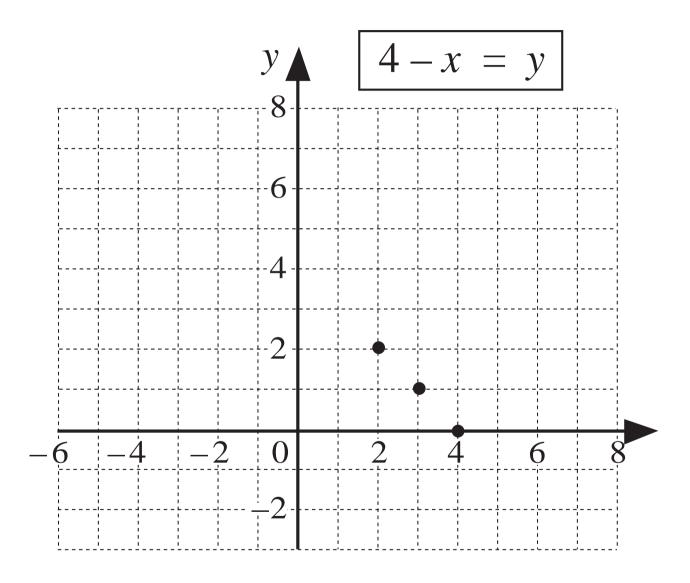
$$(+4) - (+2) = +2$$

$$(+4) - (+1) = +3$$

$$(+4) - 0 = +4$$

$$(+4) - (-1) =$$

$$(+4) - (-2) =$$



b)

$$(-4) - (+2) =$$

$$(-4) - (+1) =$$

$$(-4) - 0) = -4$$

$$(-4) - (-1) = -3$$

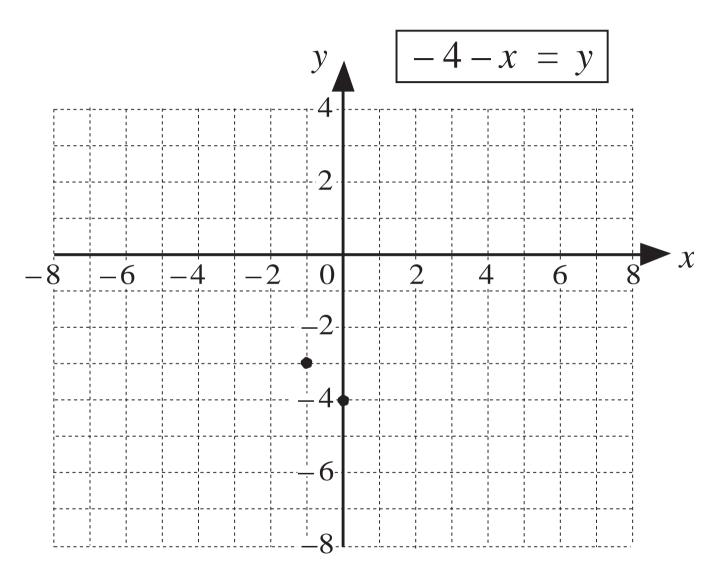
$$(-4) - (-2) = -2$$

$$(-4) - (-3) =$$

$$(-4) - (-4) = 0$$

$$(-4) - (-5) =$$

$$(-4) - (-6) =$$



b)

(+3) + (-5) =

$$(+3) - (+5) =$$

$$(-3) + (-2) =$$

$$(-3) - (+2) =$$

$$(+3) + (-4) =$$

$$(+3) - (+4) =$$

$$(-3) + (-1) =$$

$$(-3) - (+1) =$$

$$(+3) + (-3) =$$

$$(+3) - (+3) =$$

$$(-3) + 0 =$$

$$(-3) - 0 =$$

$$(+3) + (-2) =$$

$$(+3) - (+2) =$$

$$(-3) + (+1) =$$

$$(-3) - (-1) =$$

$$(+3) + (-1) =$$

$$(+3) - (+1) =$$

$$(-3) + (+2) =$$

$$(-3) - (-2) =$$

$$(+3) + 0 =$$

$$(+3) - 0 =$$

$$(-3) + (+3) =$$

$$(-3) - (-3) =$$

$$(+3) + (+1) =$$

$$(+3) - (-1) =$$

$$(-3) + (+4) =$$

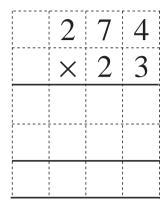
$$(-3) - (-4) =$$

$$(+3) + (+2) =$$

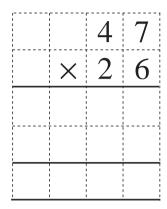
$$(+3) - (-2) =$$

$$(-3) + (+5) = (+3) - (-5) =$$

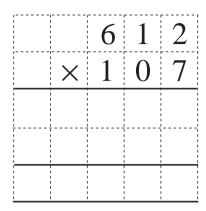
$$(+3) - (-5) =$$



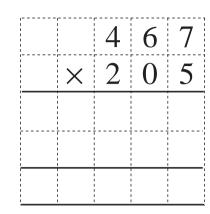
b)



c)



d)



LP 60/3

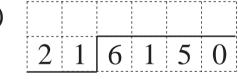
a)

		1 1 1 1	
6	4	8	9

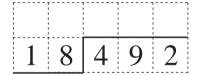
b)

		1	
9	4	2	3

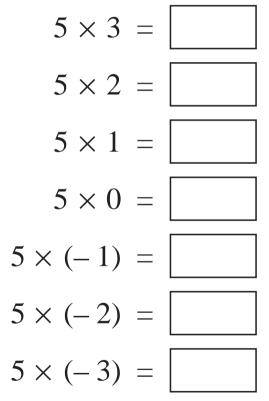
c)

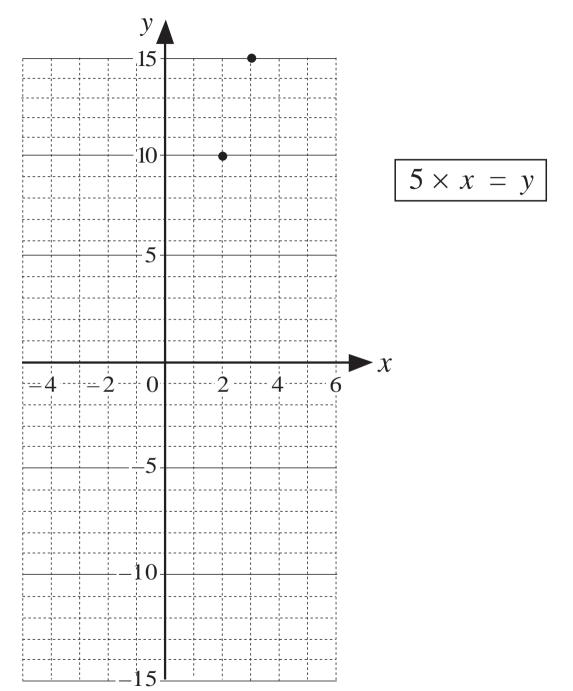


d)



H Th	TTh	Th	Н	T	U





$$9 \div 3 =$$

$$6 \div 3 = |$$

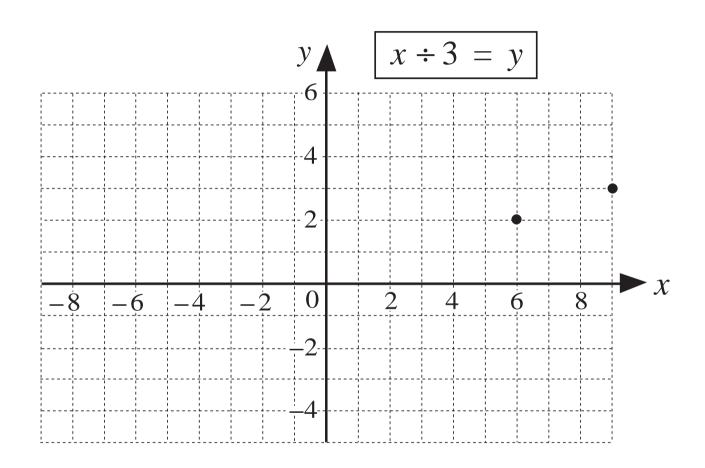
$$3 \div 3 = |$$

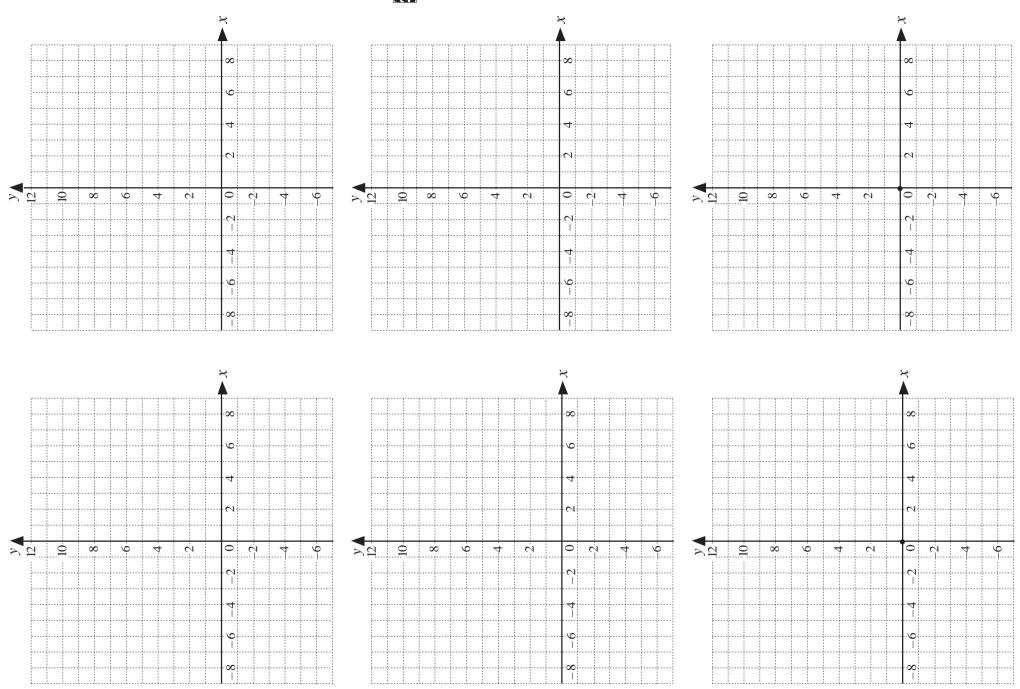
$$0 \div 3 = |$$

$$-3 \div 3 =$$

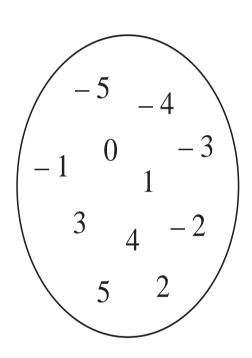
$$-6 \div 3 =$$

$$-9 \div 3 = \boxed{}$$





1 sheet per P Also use to prepare solution.



Statement	Numbers which make it true	Numbers which make it false
5 - = 8		
6+ = 1		
< 3		
5- > 6		
4+		

a)
$$-4 - \boxed{} = -18$$
 b) $- \bigcirc < 1$

b)
$$-() < 1$$



c)
$$13 + \bigwedge = -10$$

d)
$$-3 - \square \le -15$$
 e) $10 - \square = 15$ f) $\triangle -(-2) > 5$

e)
$$10 - \bigcirc = 15$$

$$(-2) > 3$$

g)
$$-(-3) = -5$$

h)
$$-8 - \bigcirc > -1$$

$$+(-3) = -5$$
 h) $-8 -1$ i) $-10+(-x) = -11$

$$x =$$

a)
$$\square \times 6 \geq -18$$

b)
$$+8 \times \bigcirc \leq 0$$

d)
$$-24 \div \square = -6$$
 e) $\bigcirc \div 5 = -3$ f) $(-5) + \triangle < +6$

$$\bigcirc \div 5 = -3$$

f)
$$(-5) + \triangle < +6$$

$$b =$$

a)
$$13 - \boxed{} > 10$$

a)
$$13 - \boxed{} > 10$$
 b) $-10 + (-\bigcirc) < -11$ c) $\triangle \div 5 = -7$

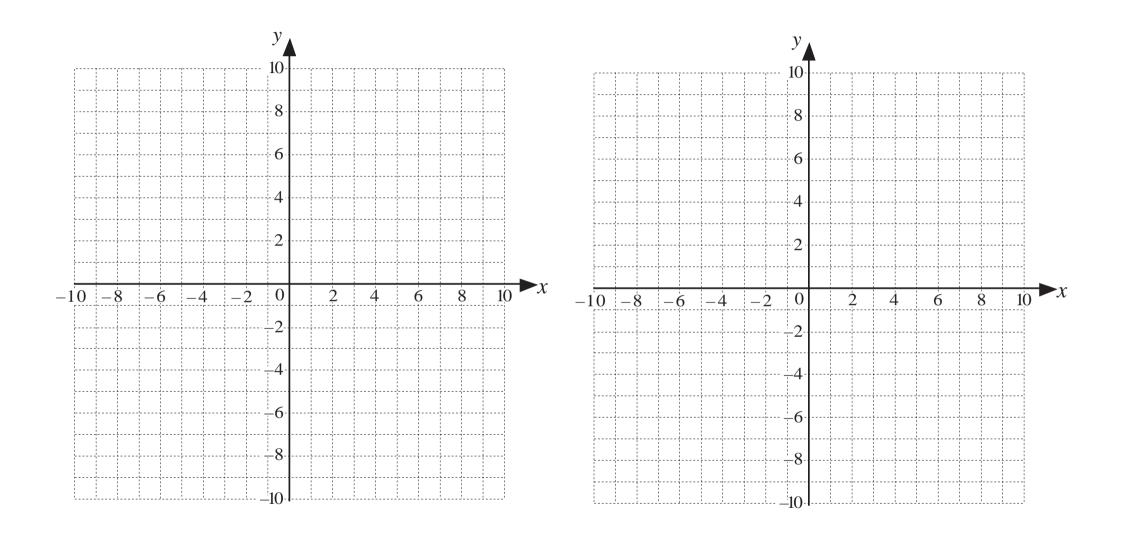
c)
$$\triangle \div 5 = -7$$

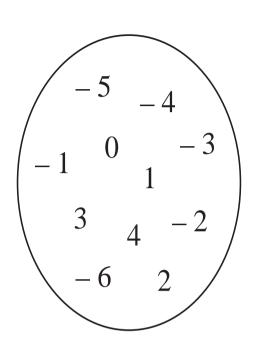
d)
$$(-4) \times \square > -24$$

d)
$$(-4) \times \square > -24$$
 e) $-12 + 2 \times \square = -16$ f) $\triangle \div (+3) = -6$

f)
$$\triangle \div (+3) = -6$$

LP 64/11





Statement	Numbers which make it true	Numbers which make it false
6- = 9		
6+ = 0		
< 2		
3 > 4		
4+ \[\leq 2		

LP 65/3

Rule:

a)
$$6 + 8 =$$

b)
$$24 + 5 =$$

c)
$$32 + 19 =$$

d)
$$250 + 190 =$$

e)
$$13 - 8 =$$

f)
$$26 - 12 =$$

g)
$$54 - 18 =$$

h)
$$350 - 140 =$$

i)
$$6 \times 7 =$$

$$i) 14 \times 5 =$$

k)
$$6 \times 90 =$$

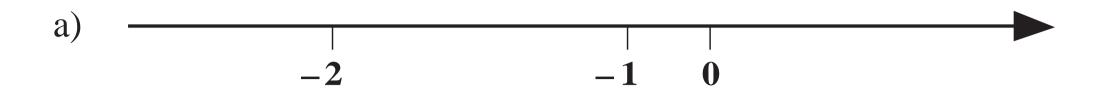
1)
$$18 \times 100 =$$

m)
$$30 \div 5 =$$

n)
$$42 \div 7 =$$

o)
$$150 \div 10 =$$

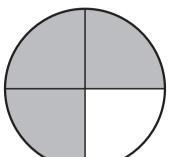
p)
$$250 \div 10 =$$



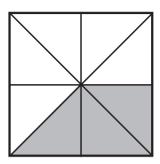


X	7	8	9	5		6	7	10	6	0
	3				9		7		11	30
\overline{z}	22	17	46		82	61		81		

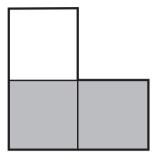




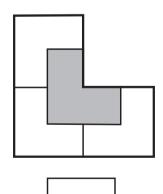
b) 1 unit



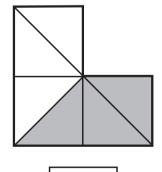
c) 1 unit



1 unit d)

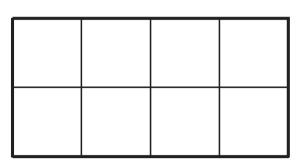


1 unit e)





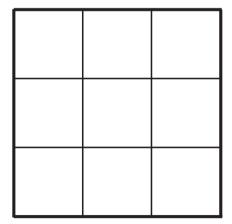
a)

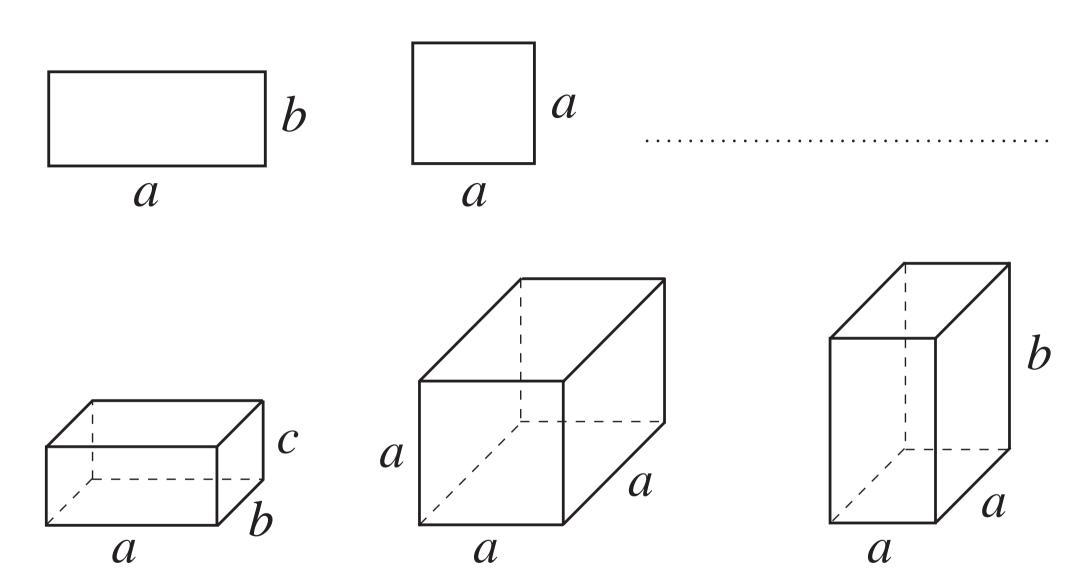


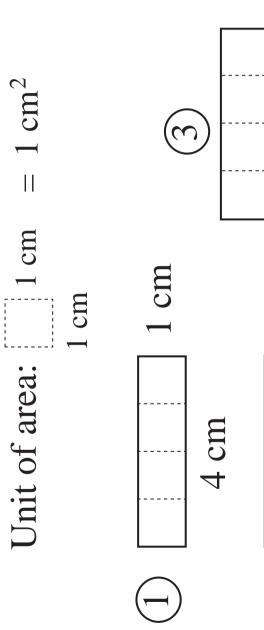
b)

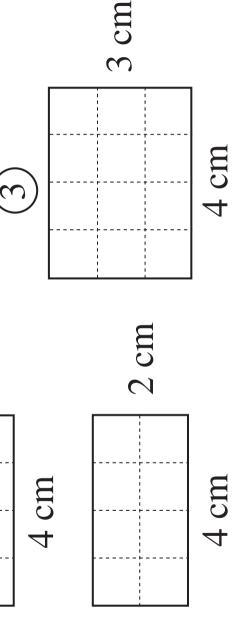
c)

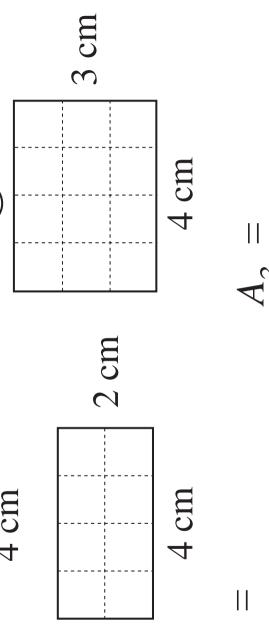
d

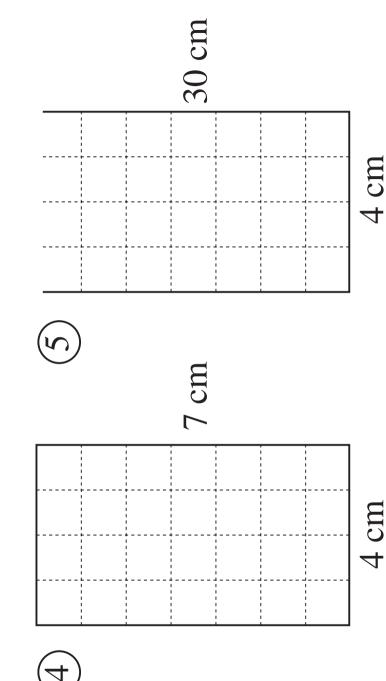




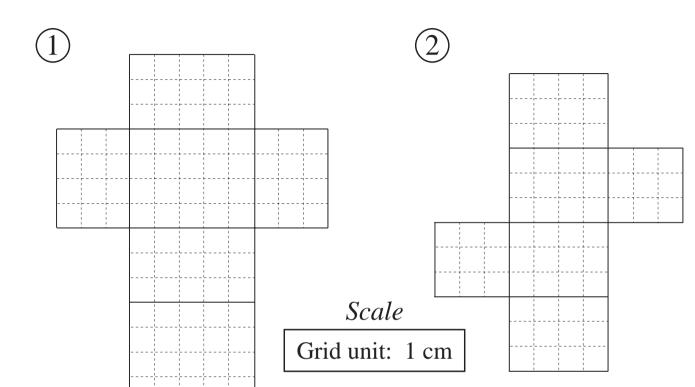


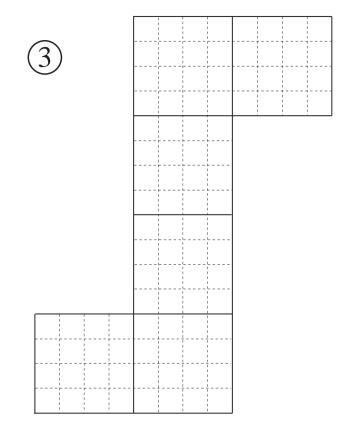






LP 67/8





$$A =$$

$$A =$$

$$A =$$

$$V =$$

$$V =$$

$$V =$$

a) We can work out the

perimeter

of a rectangle if

we add the lengths of its sides.

$$P_{\text{rectangle}} = a + b + a + b = 2a + 2b = 2 \times (a + b)$$

$$P_{\text{square}} = a + a + a + a = 4 \times a$$

b) We can work out the **area** of a rectangle if we multiply two adjacent sides.

$$A_{\text{rectangle}} = a \times b$$

$$A_{\text{square}} = a \times a$$

c) We can work out the **surface area** add the area of it faces.

$$A_{\text{cuboid}} = 2 \times (a \times b + a \times c + b \times c)$$

$$A_{\text{square-based cuboid}} = 2 \times (a \times a) + 4 \times (a \times b)$$

$$A_{\text{cube}} = 6 \times a \times a$$

of a cuboid if we

d) We can work out the **volume** of a cuboid if we multiply the lengths of the 3 edges which meet at a vertex.

$$V_{\text{cuboid}} = a \times b \times c$$
 $V_{\text{square-based cuboid}} = a \times a \times b$
 $V_{\text{cube}} = a \times a \times a$

a					
b					
C					

LP 68/3

No. of cards per envelope						
No. of envelopes						

a)	а	8	0	14	7		13	29		28
	\overline{b}	22	30	16		20			-1	

Rule:

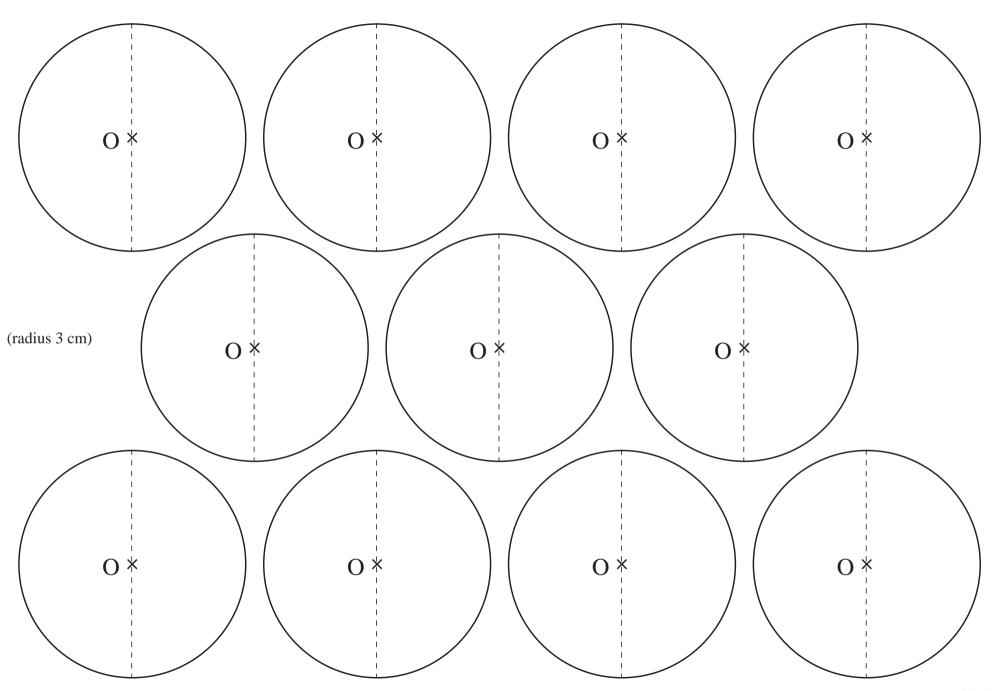
Rule:

\mathcal{X}	4	5	2	4	5	10	6		9	
y	2	3	9	7	5			4	0	
\overline{z}	7	14	17			9	35	19		20

Rule:
$$z =$$

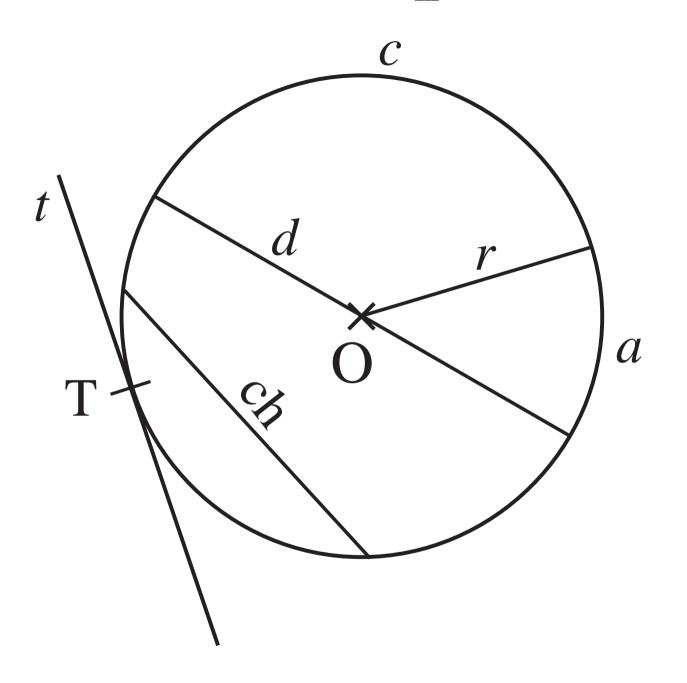
$$y =$$

$$x =$$



Stick straws behind dotted lines.

- a) The **circumference** of a circle is the set of points in a plane which are a given distance (not zero) from a given point in the **plane**.
- b) A circle is the set of points in a plane which are equal to or less than a given distance from a point in the plane.
- The surface of a sphere is the set of points in **space** which are a given **distance** (not zero) from a given point in space.
- d) A **sphere** is the set of points in space which are equal to or less than a given distance from a **given point** in space.



circumference (c)

centre (O)

radius (r)

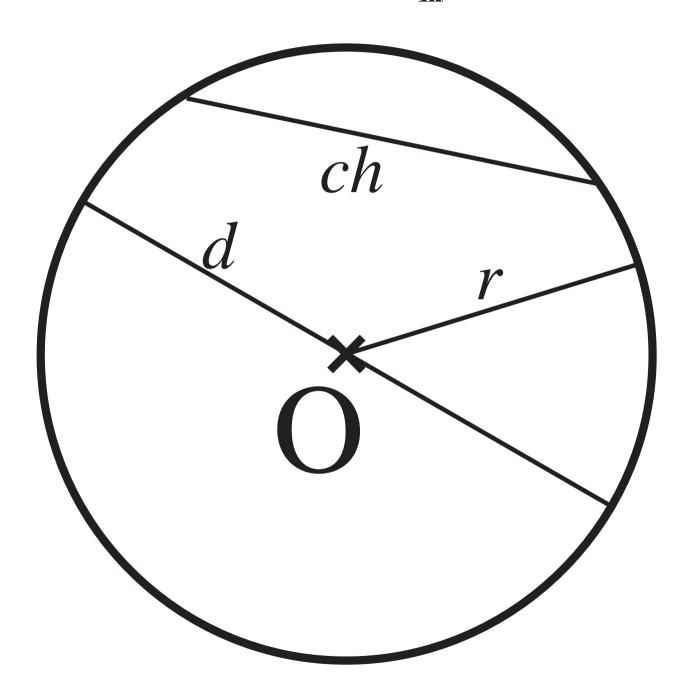
diameter (d)

arc (a)

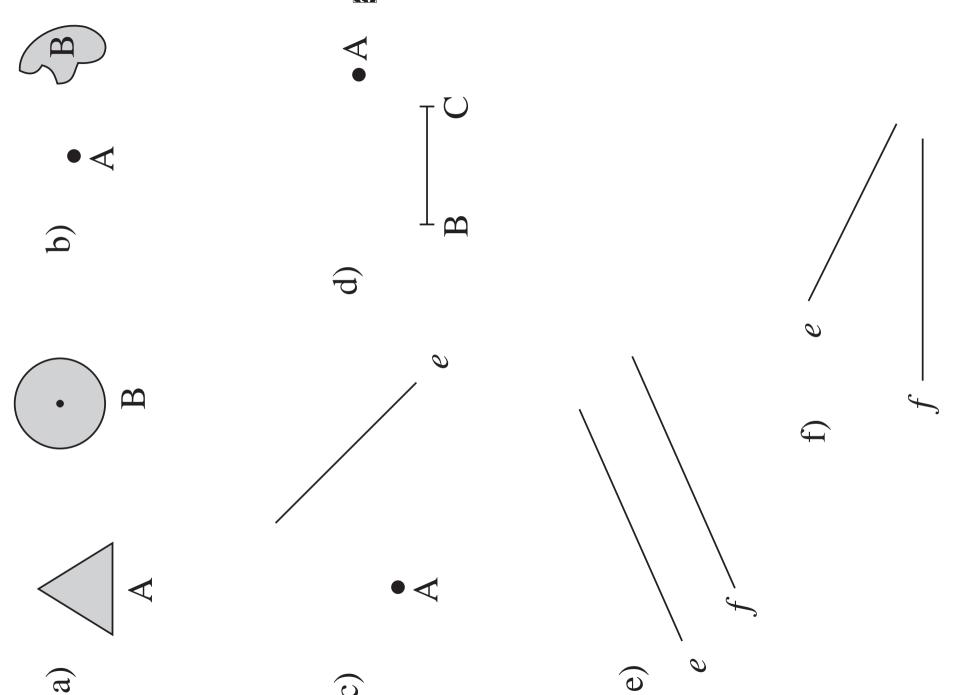
chord (ch)

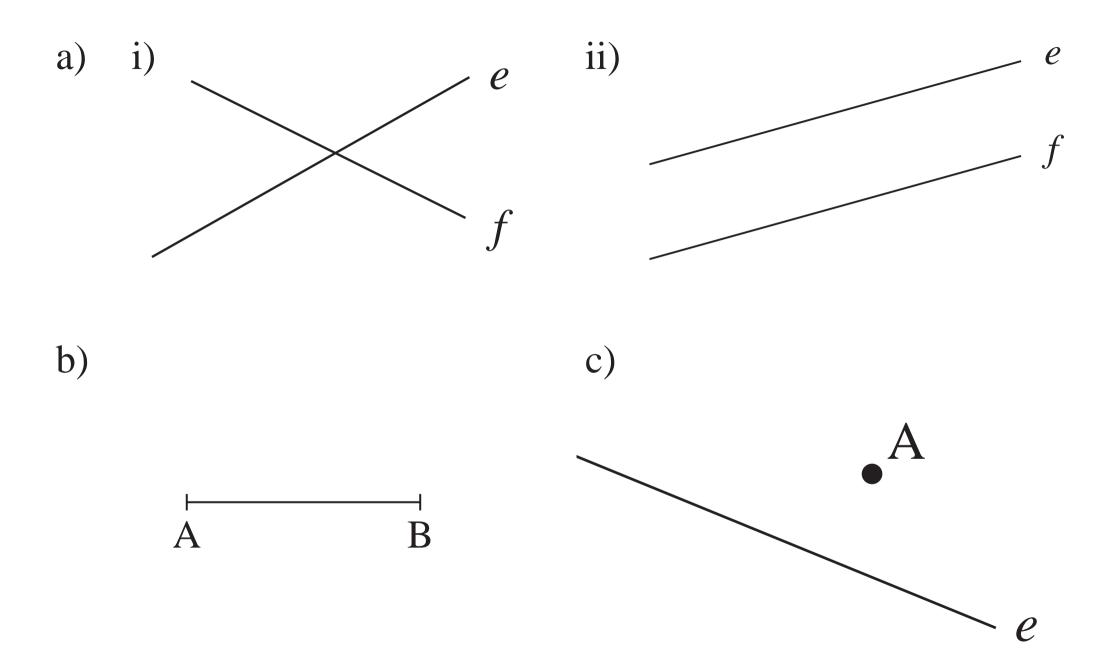
tangent (t)

tangent point (T)



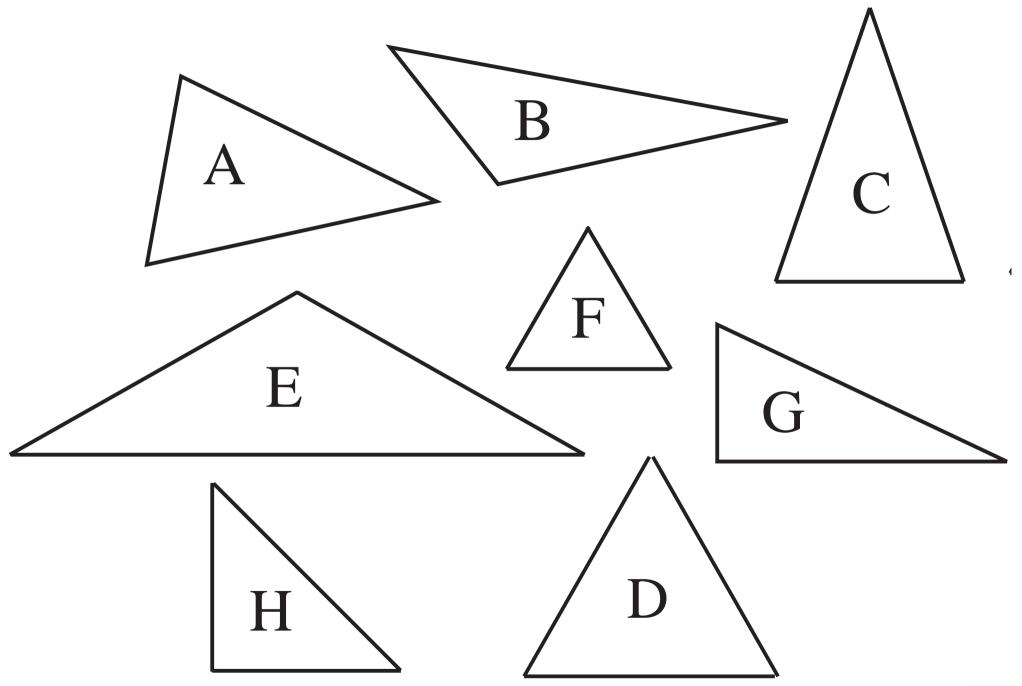
sector
segment
semi-circle

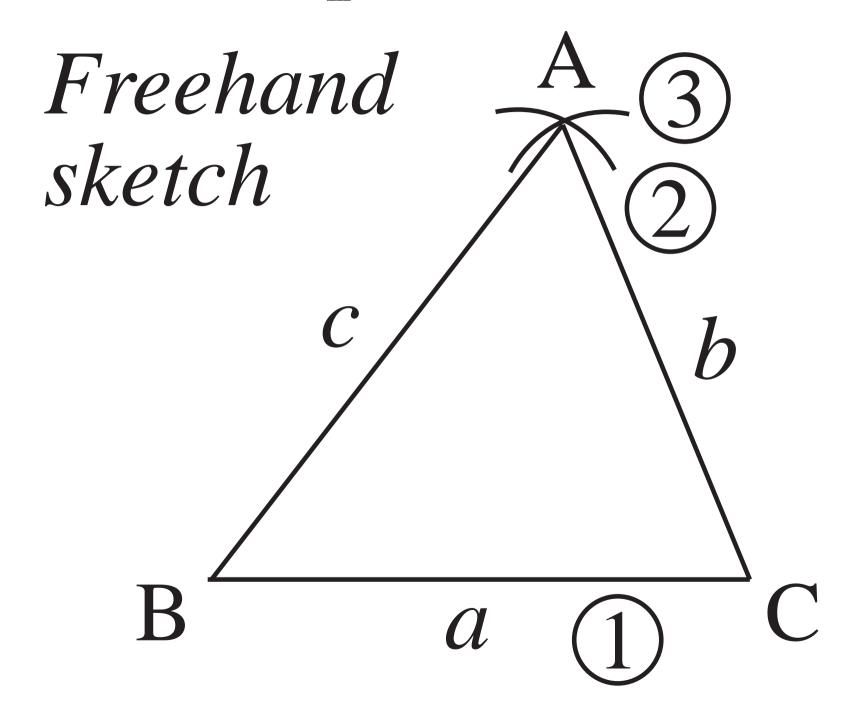


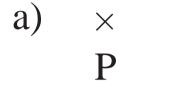


- b) The of a circle is a

 which connects the centre of the circle with a point on the circumference.

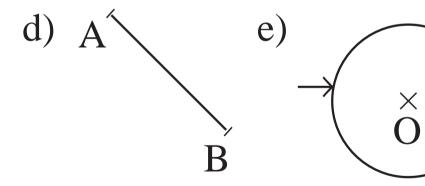


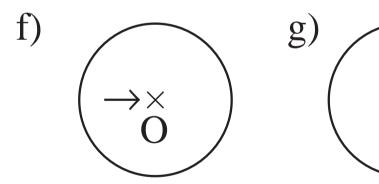


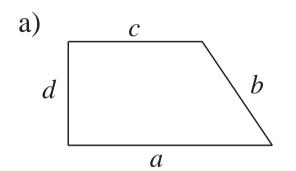


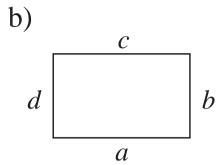


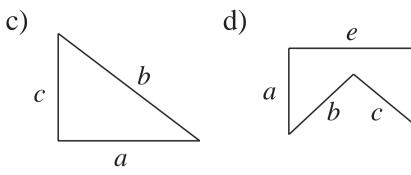


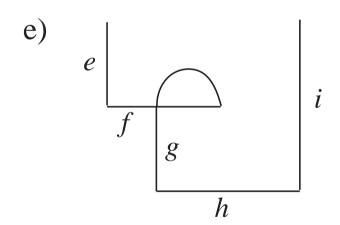


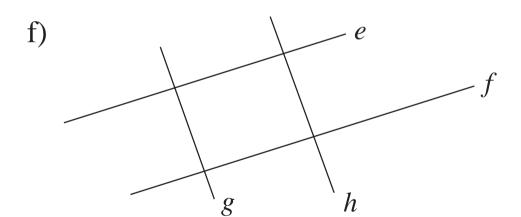




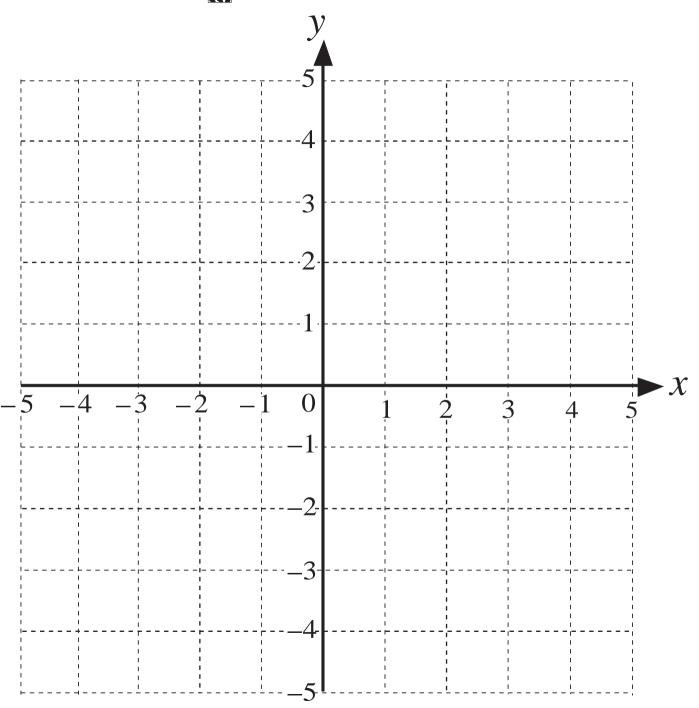


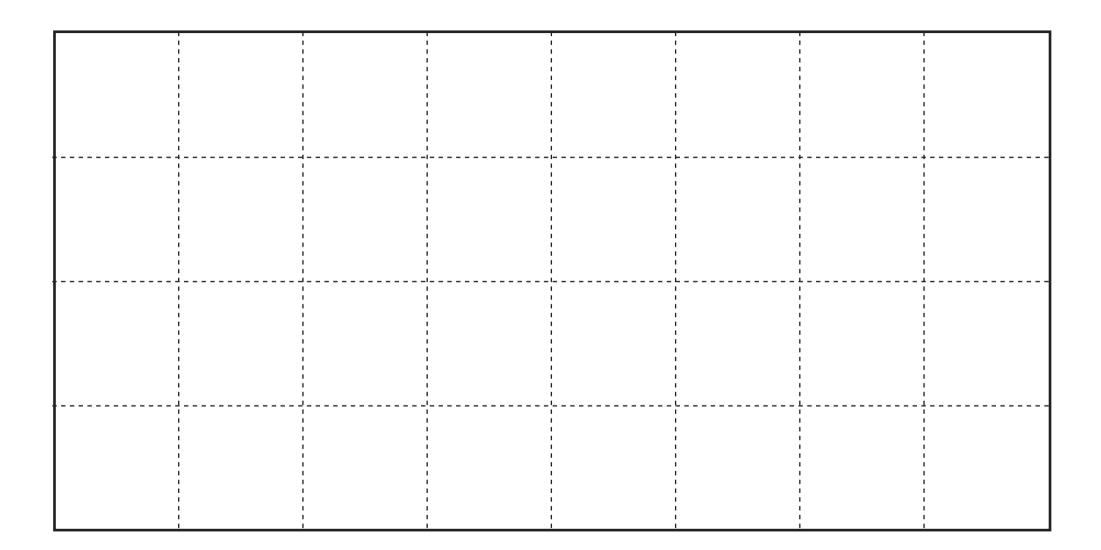


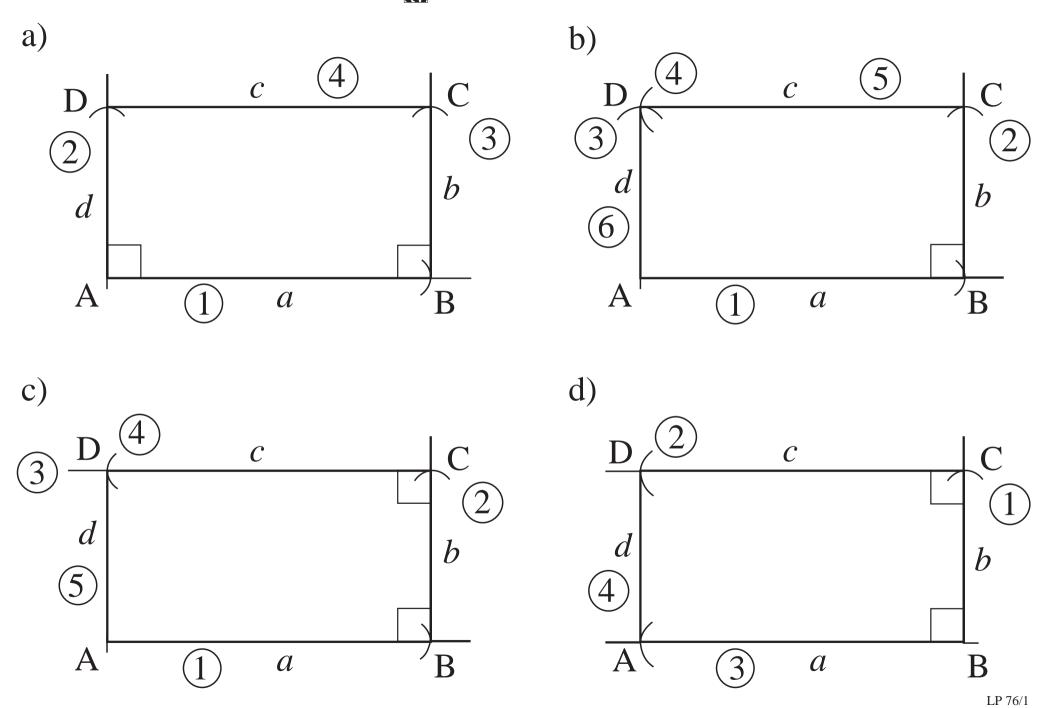


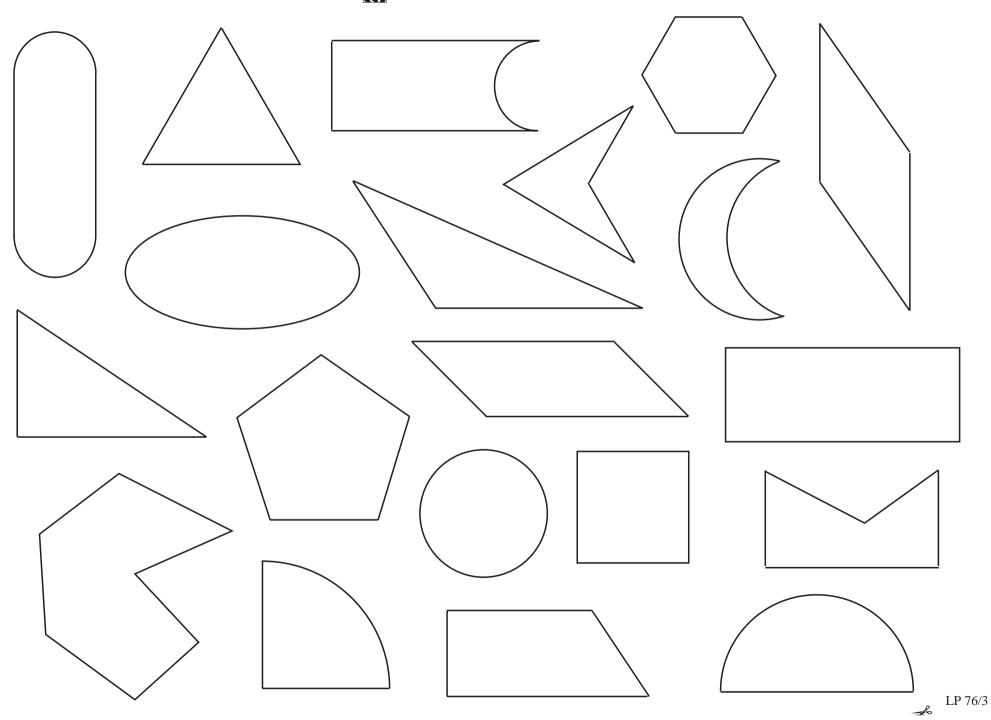


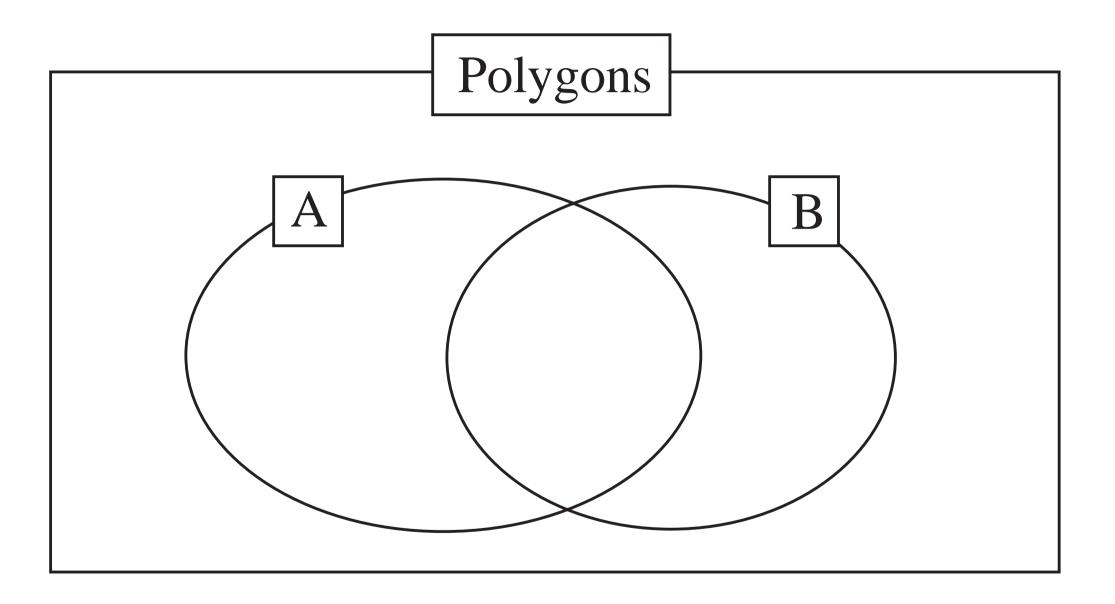
d

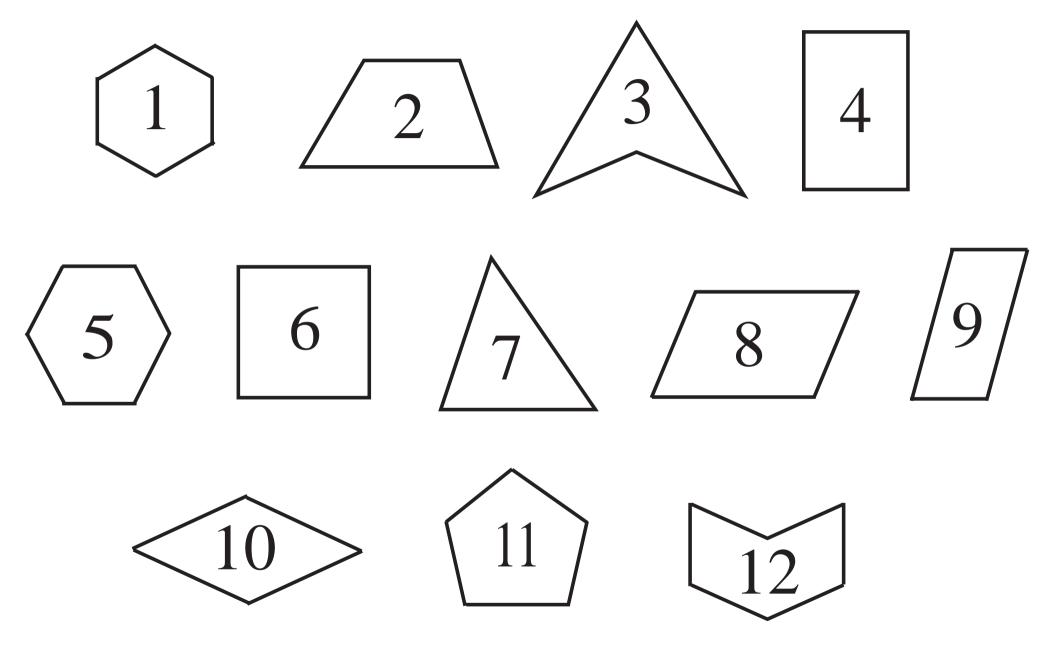


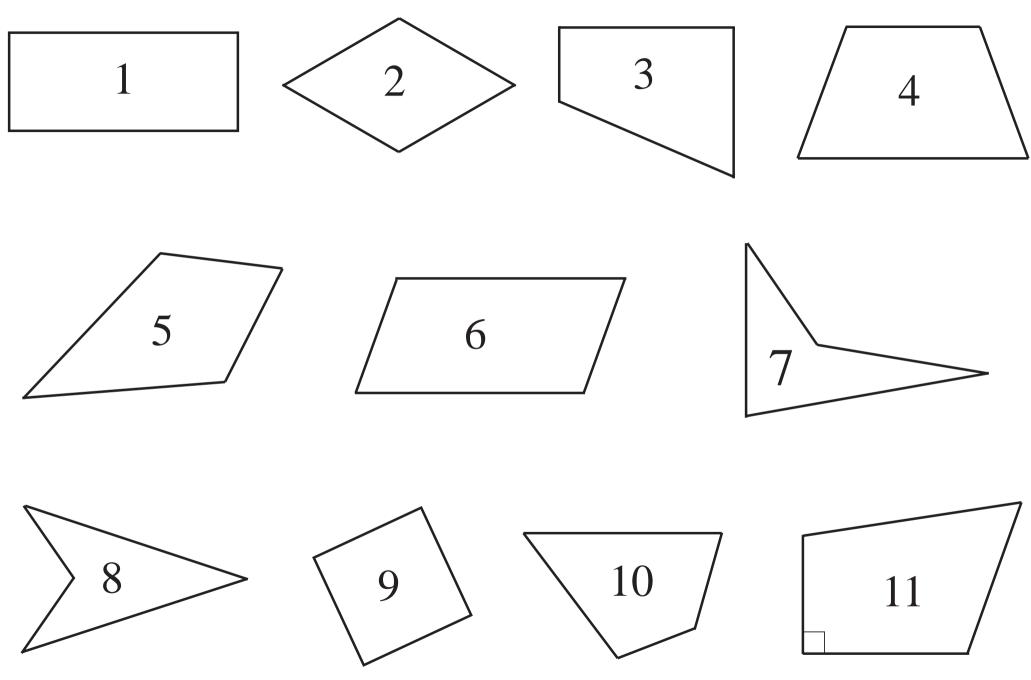


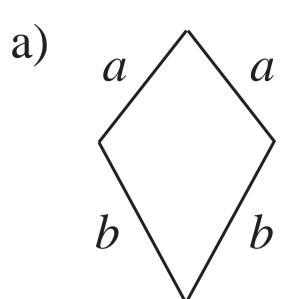


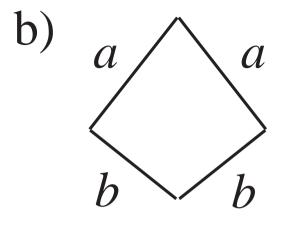


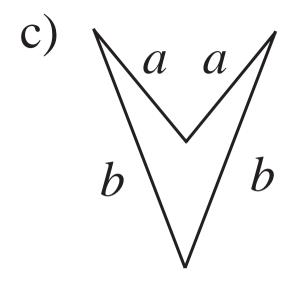




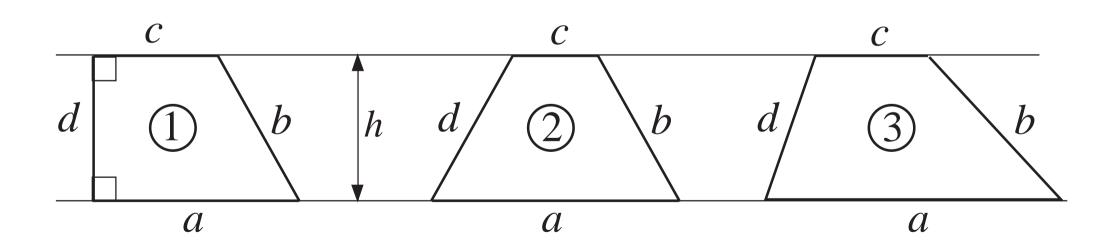


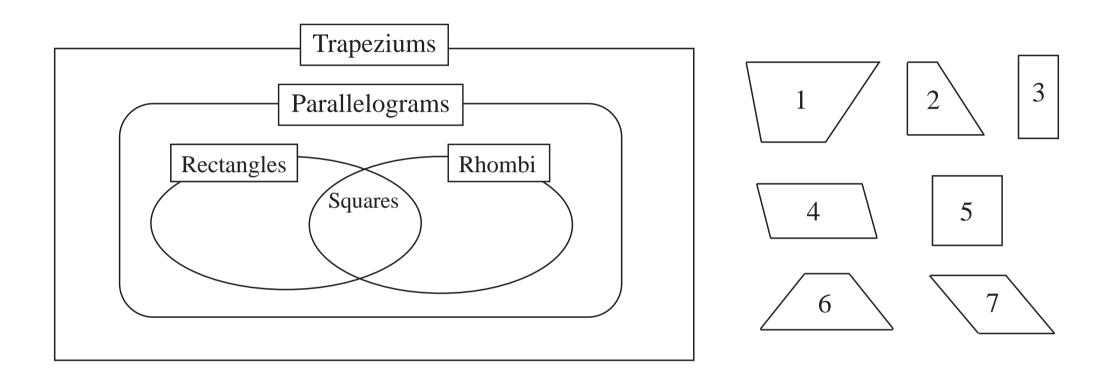


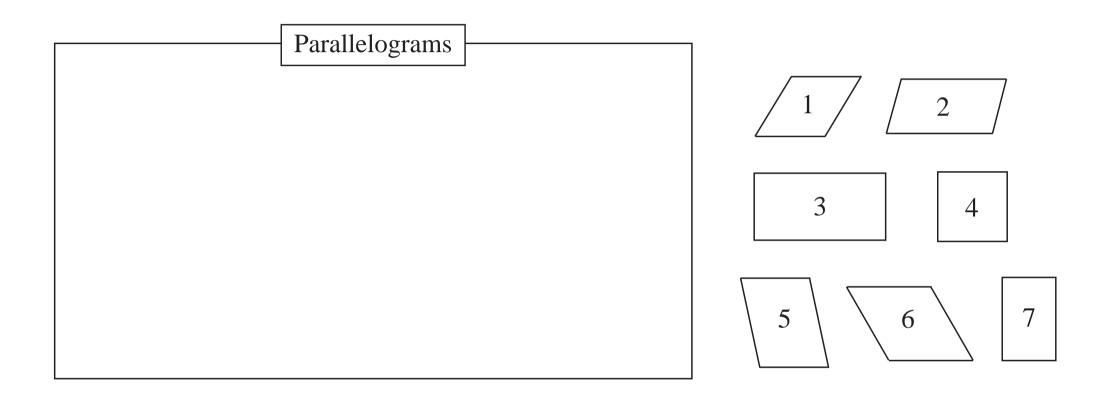




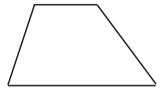
LP 76/7



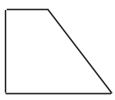








ii)



iii)



P =

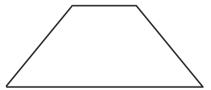
P =

P =

iv)



V)



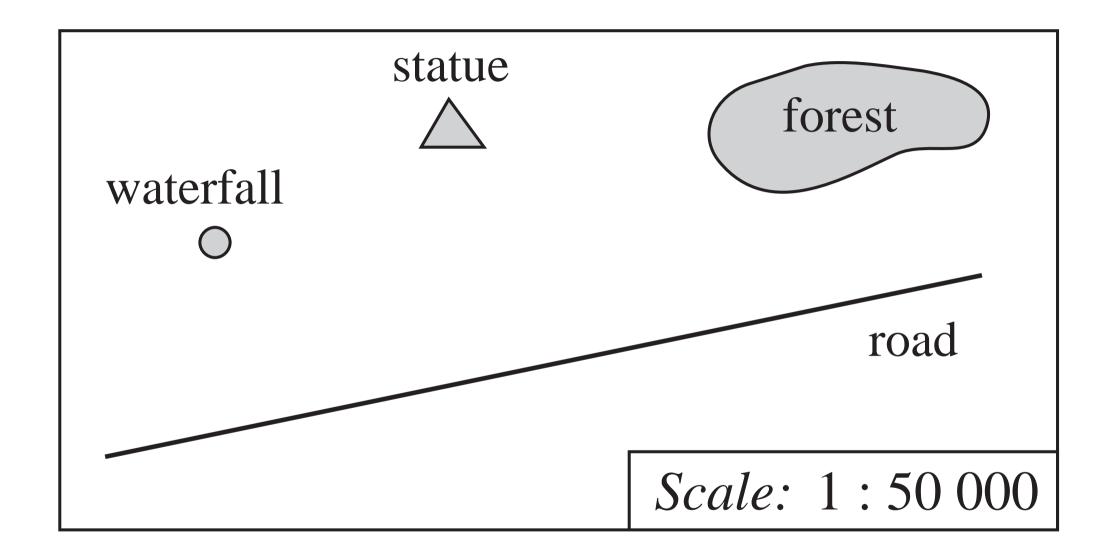
vi)

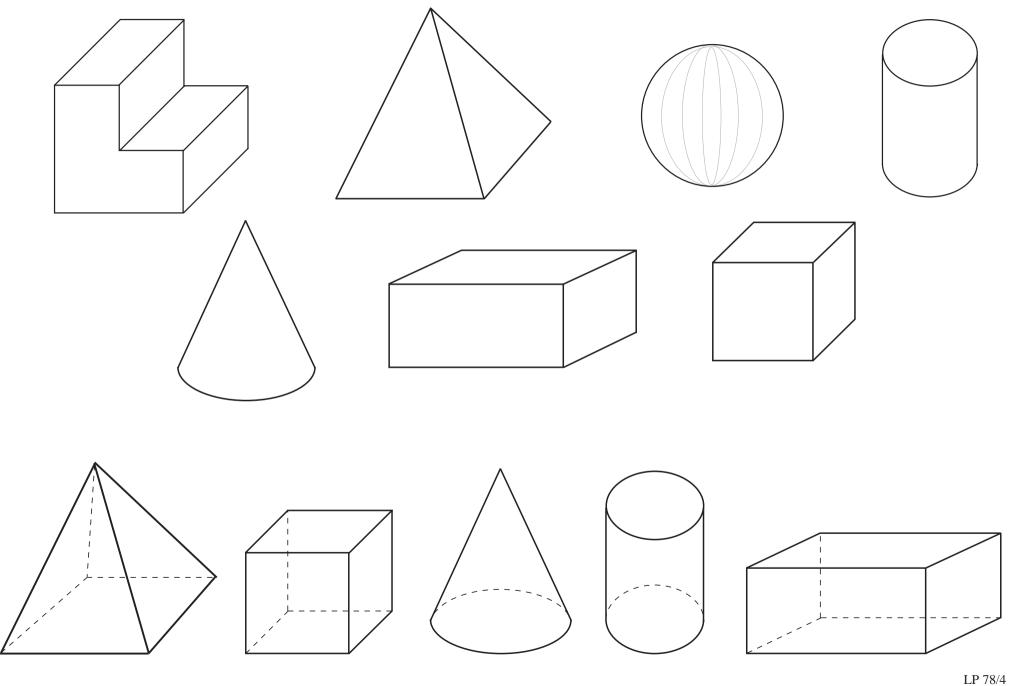


P =

P =

P =

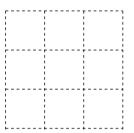




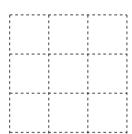




Front view



Side view

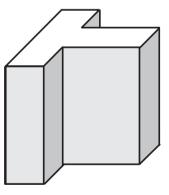


Top view



Volume =





Front view

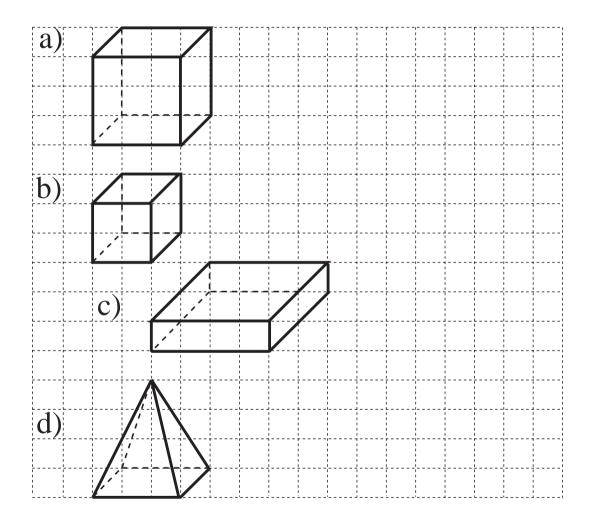




Top view



Volume =



Name:

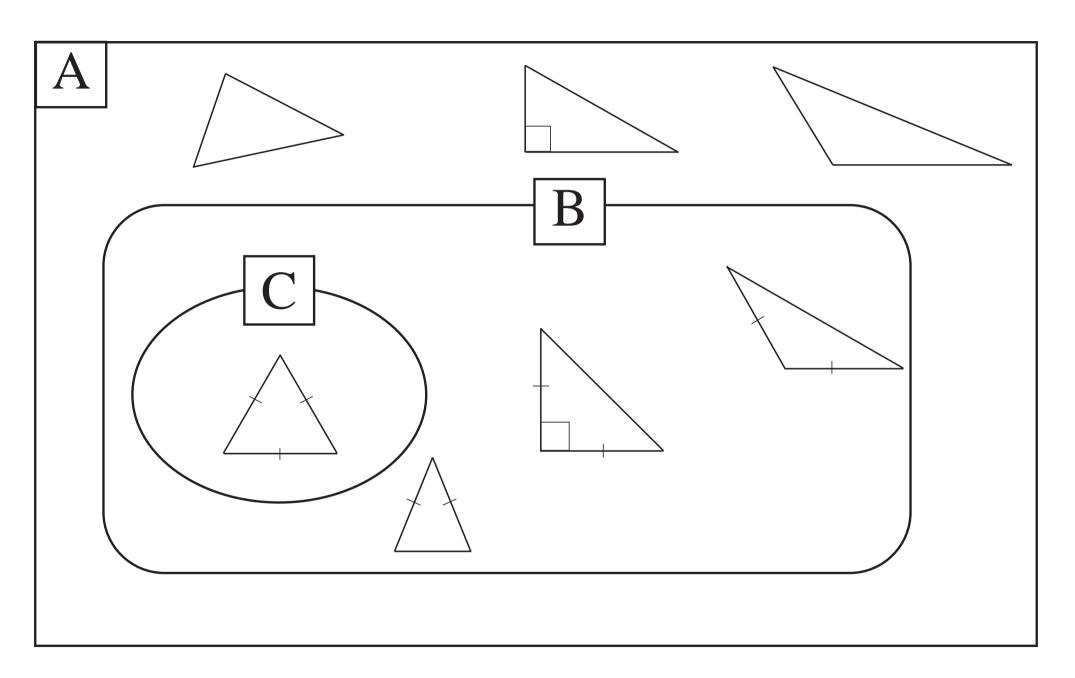
$$v =$$
 $e =$ $f =$

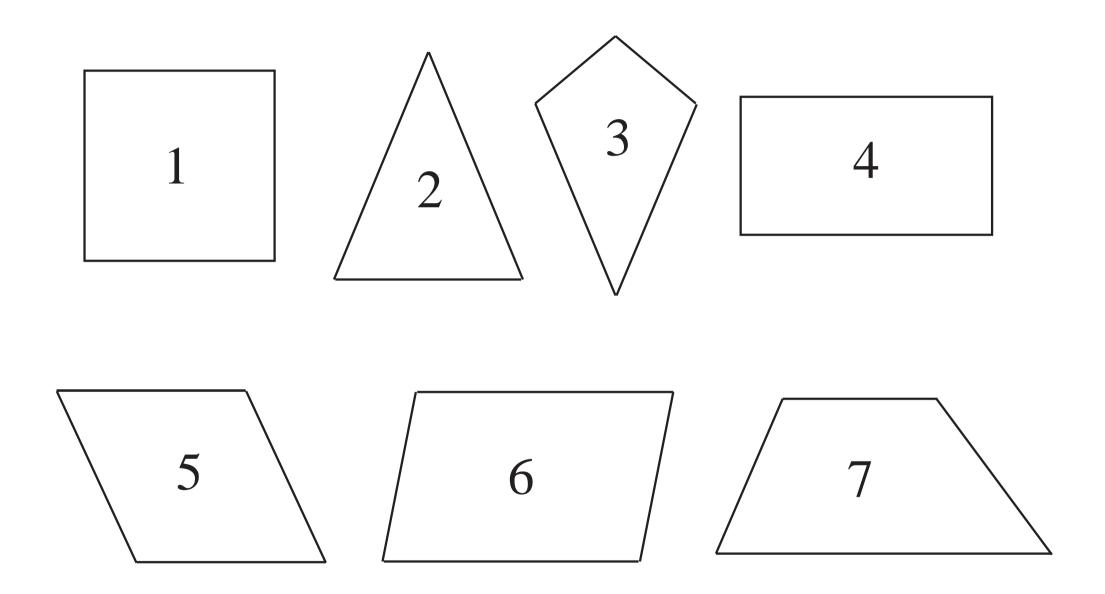
Name:

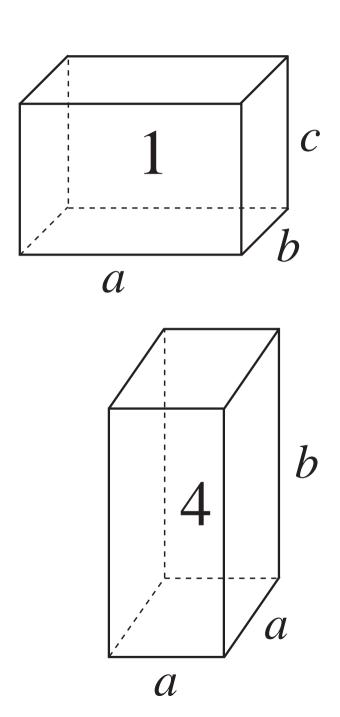
Name:

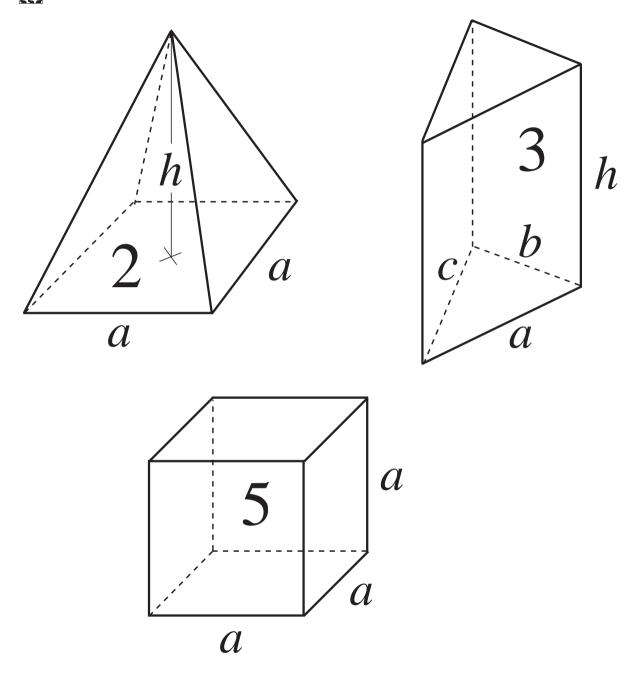
$$v =$$
 $e =$ $f =$

Name:

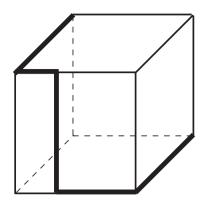




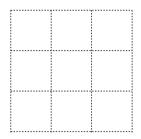




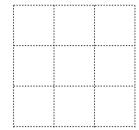




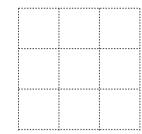




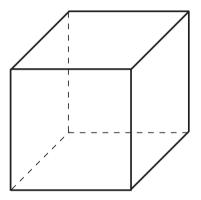
Side view



Top view



b)



Front view



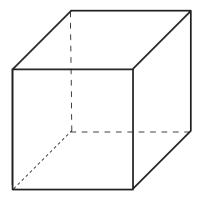
Side view



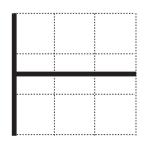
Top view



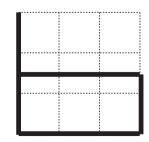
c)



Front view

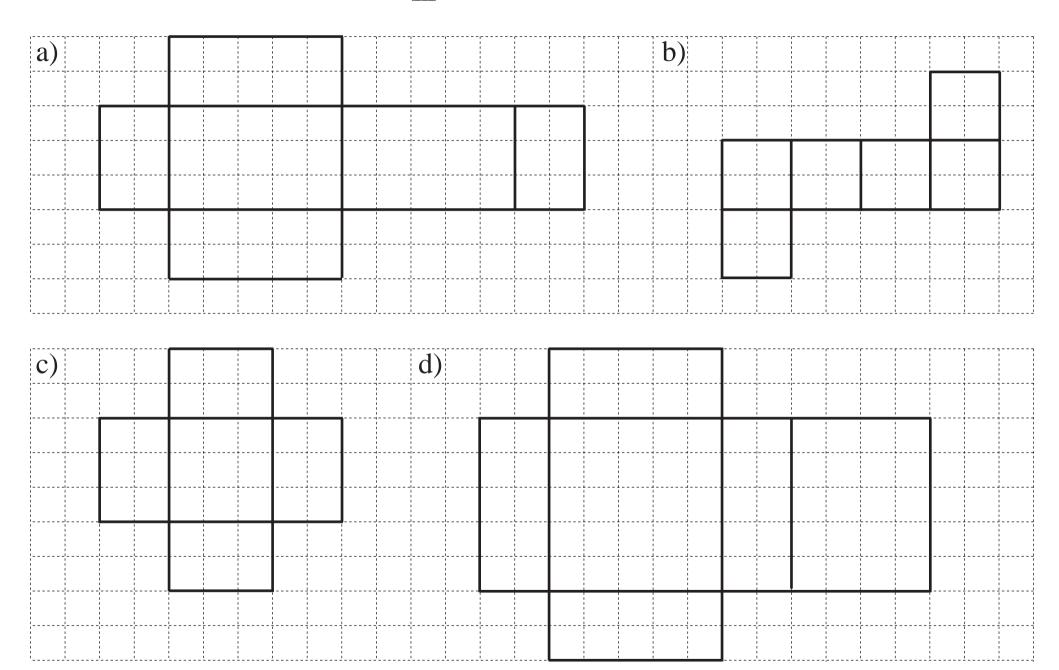


Side view

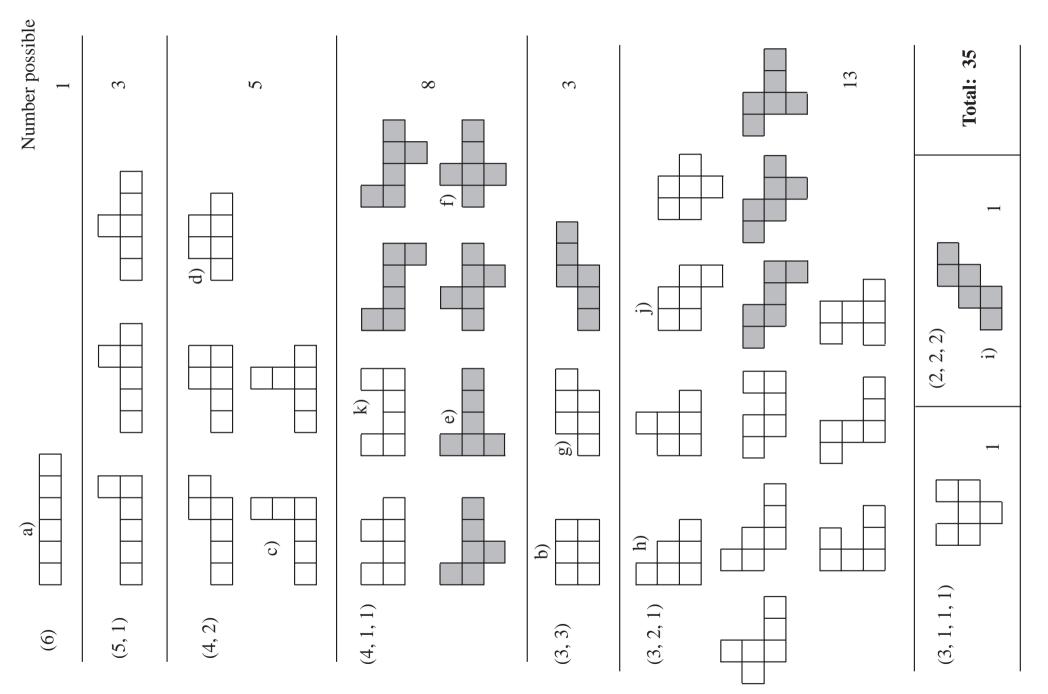


Top view





a)		b)	c)	d)	e)
f)	g)	h)	i)	j)	k)



LP 80/3 Solution