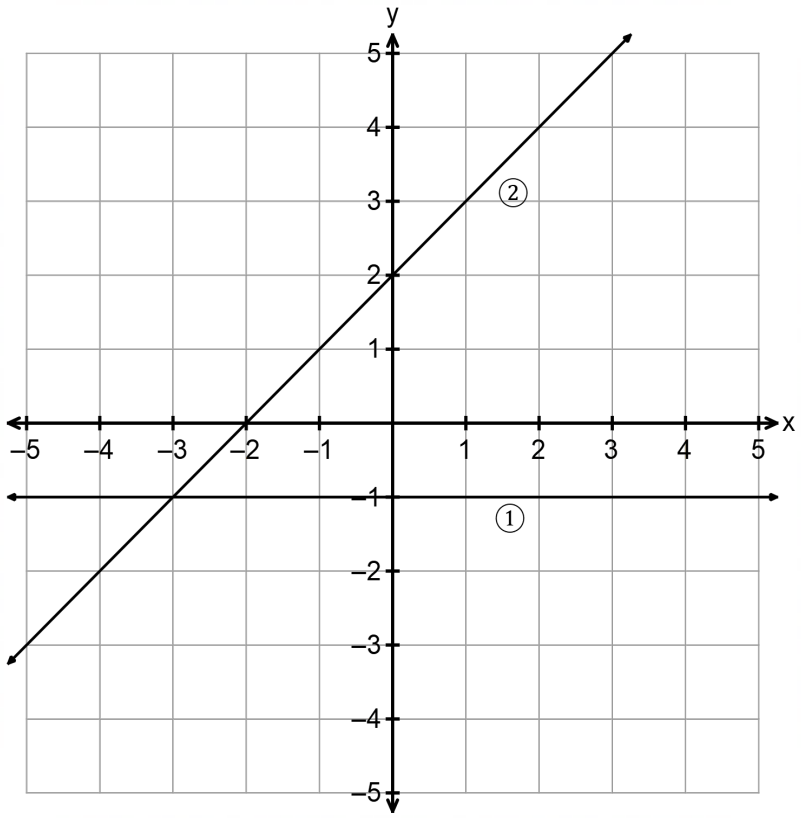
SIMI GRADE 9 REVISION – 3rd September 2026

SECTION A : MULTIPLE CHOICE QUESTIONS

QUESTION 1

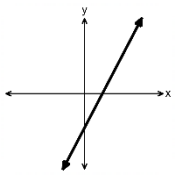
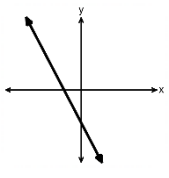
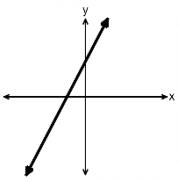
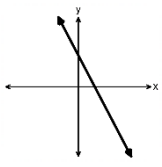
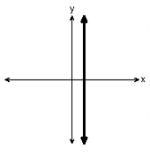
Circle the letter which corresponds to the correct answer.

1.1 What are the equations of the two given graphs: (1)

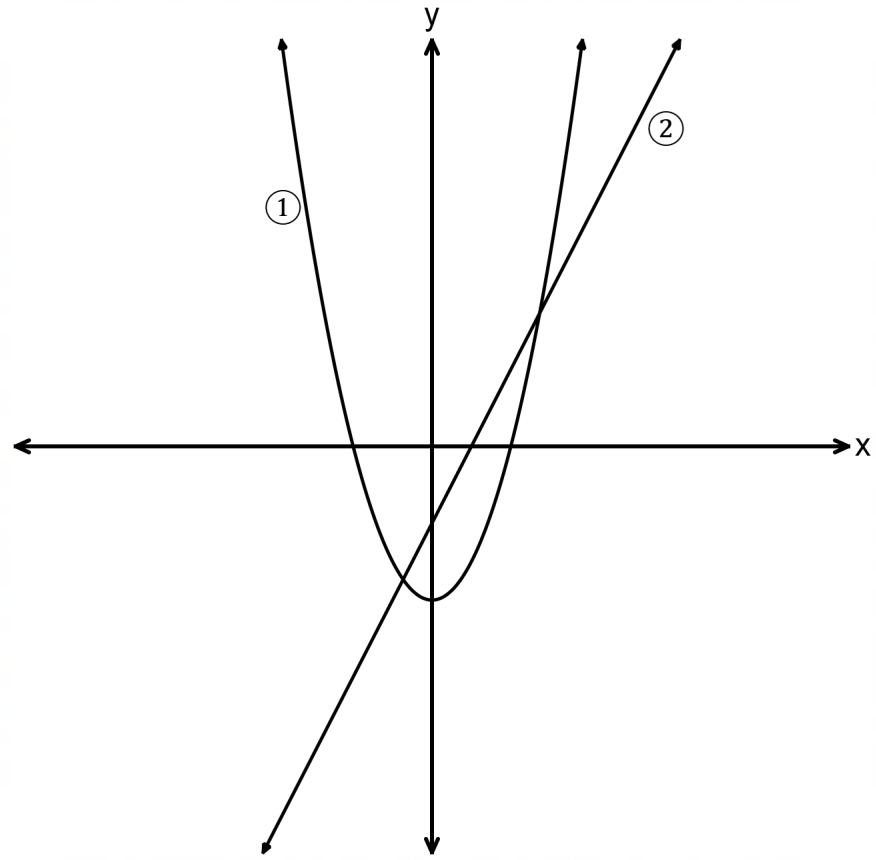


A) ① $x=-1$ ② $y=x+2$ B) ① $y=-1$ ② $y=x-2$ C) ① $y=-1$ ② $y=x+2$ D) ① $y=2$ ② $y=-1$ E) ① $y=-1$ ② $y=2x$

1.2 Which graph represents $y=mx+c$ with $m>0$ and $c<0$? (1)

A)  B)  C)  D)  E) 

1.3 Consider the graphs as shown: (1)

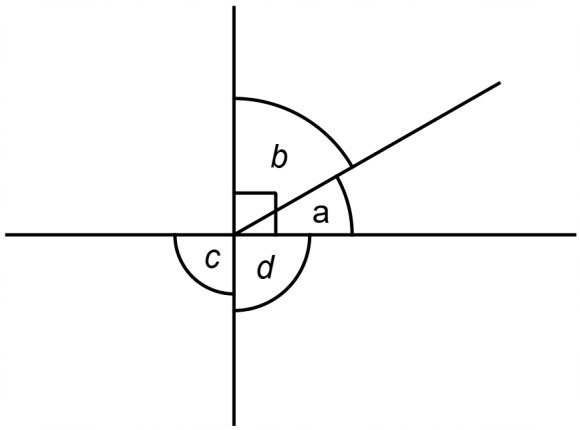


Which statement is true?

A – both are linear
B – neither is linear
C - ① is linear but ② is not
D - ② is linear but ① is not

A) A B) B C) C D) D E) None of them

1.4 (1)

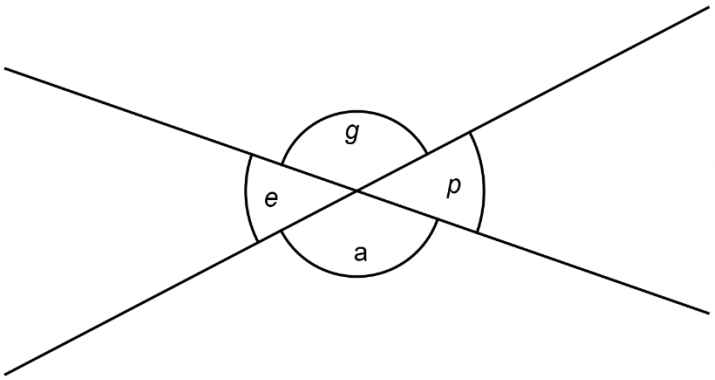


Which statement is true?

A – *b* and *d* are vertically opposite angles
B – *a* and *b* are supplementary, and *c* and *d* are complementary
C – *a* and *c* are vertically opposite
D – *a* and *b* are complementary, and *c* and *d* are supplementary
E – *a* and *c* are corresponding angles

A) A B) B C) C D) D E) E

1.5 (1)

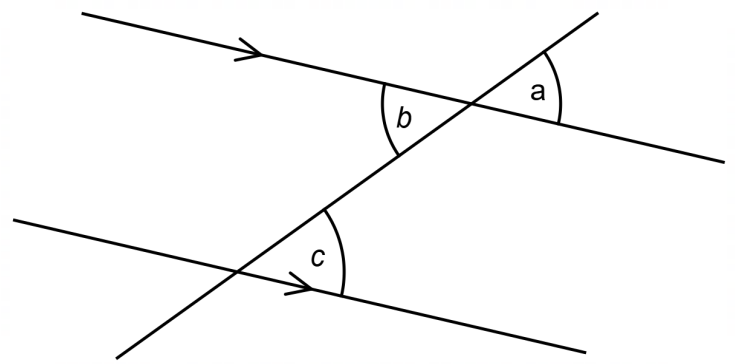


Which statement is true?

A – *g* and *p* are vertically opposite
B – *a* and *g* are vertically opposite, and *g* and *p* are adjacent
C – *a* and *g* are adjacent, and *e* and *p* are vertically opposite
D – *e* and *p* are adjacent
E – none of them

A) E B) B C) C D) D E) E

1.6 (1)



Which statement is true?

A – *a* and *c* are corresponding angles and *b* and *c* are co-interior angles
B – *a* and *c* are alternate angles and *b* and *c* are co-interior angles
C – *a* and *c* are alternate angles and *b* and *c* are co-interior angles
D – *a* and *c* are co-interior angles and *b* and *c* are alternate angles
E – *a* and *c* are corresponding angles and *b* and *c* are alternate angles

A) A B) B C) C D) D E) E

1.7 Which statements are true (1)

A – if two triangles have corresponding sides equal, they are congruent
B – if two triangles have corresponding angles equal, they are congruent

A) neither B) both C) B only D) A only E) cannot tell

1.8 In triangle ① and triangle ② each has a $40°$ angle and a $70°$ angle. (1)

Which is true?

A) They are similar B) They are not similar C) They are congruent D) They are congruent and similar E) None of them

1.9 For a kite, which statements are true? (1)

A – there are two pairs of adjacent sides equal
B – the longer diagonal bisects the shorter one
C – the diagonals bisect one another

A) A and B B) B and C C) All of them D) A and C E) None of them

1.10 For a trapezium which statements are true (1)

A – one pair of opposite sides is parallel
B – one pair of opposite sides is equal
C – both pairs of opposite sides are equal
D – both pairs of opposite sides are parallel

A) A and C B) B and D C) C only D) D only E) A only

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SECTION B : FREE RESPONSE / OPEN ENDED QUESTIONS

QUESTION 2 – GRAPHS

2.1 Find the *x*-intercept and the *y*-intercept of $y = 3x - 6$ (2)

Write your answers as points by filling in the gaps below:

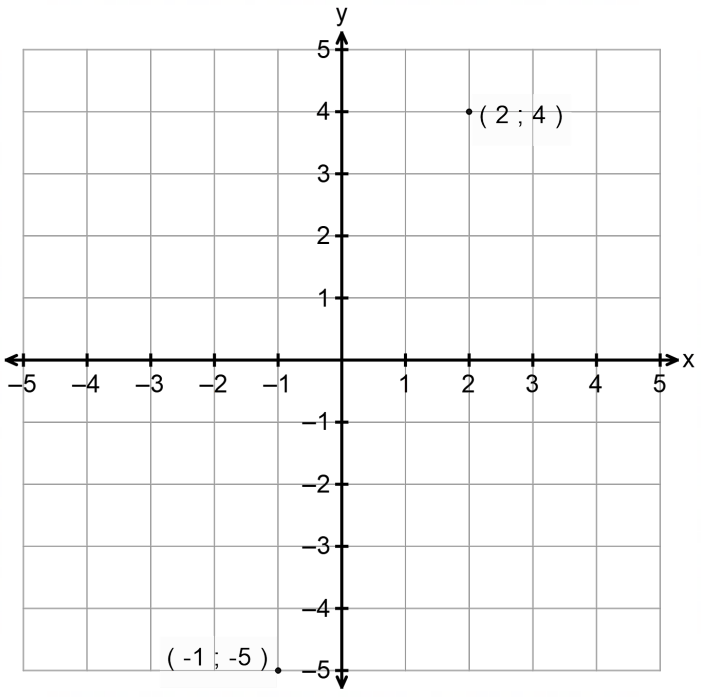
x-intercept (;) y-intercept (;)

2.2 Determine the gradient of the function

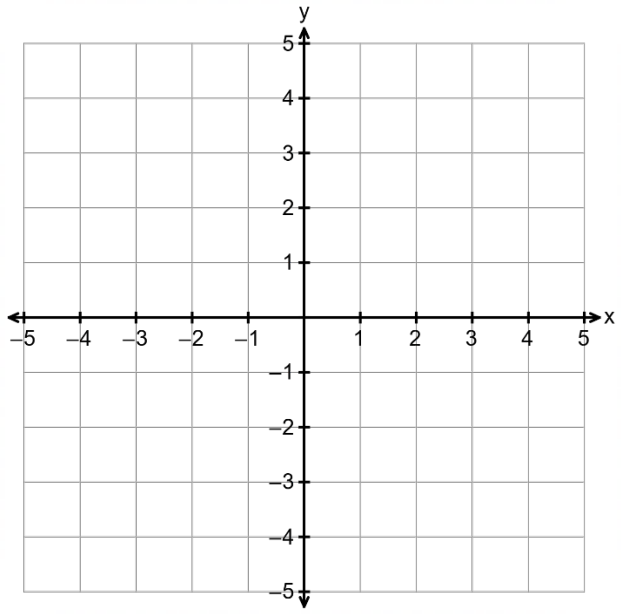
$4x + 2y = 8$ (3)

2.3 Complete the following table and then plot and label the points on the axes provided: (4)
Two points have been done for you!

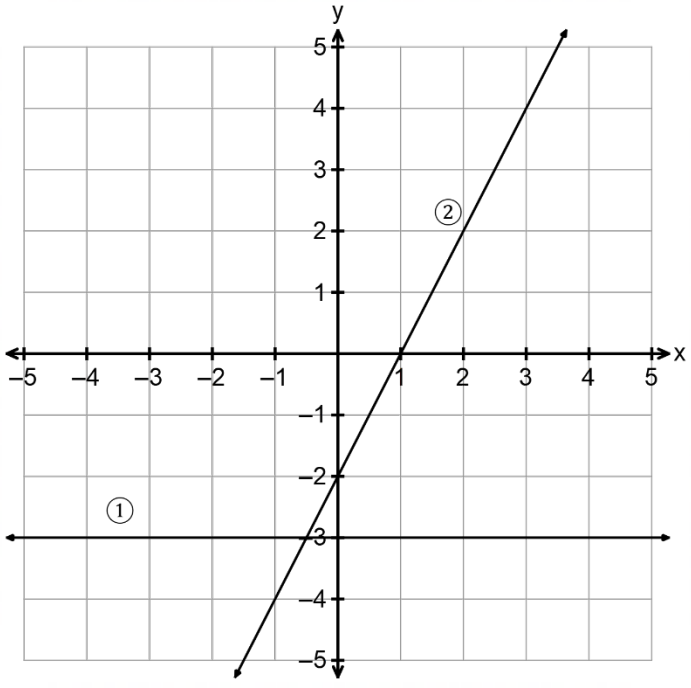
x	-1	0	1	2
$y = 3x - 2$	-5			4



2.4 Draw the graphs of $x = -3$ and $y = -x + 4$ on the axes below, clearly labelling which is which. (4)



2.5 Determine the equations of the graphs below: (4)



① _____ ② _____

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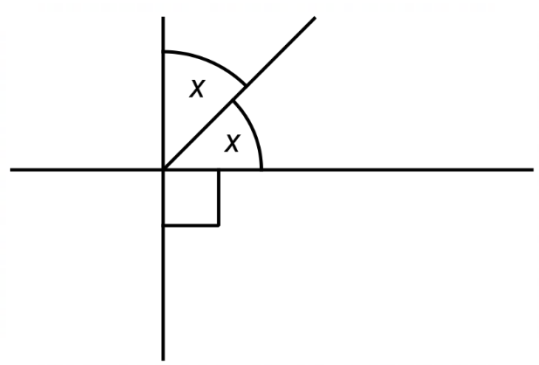
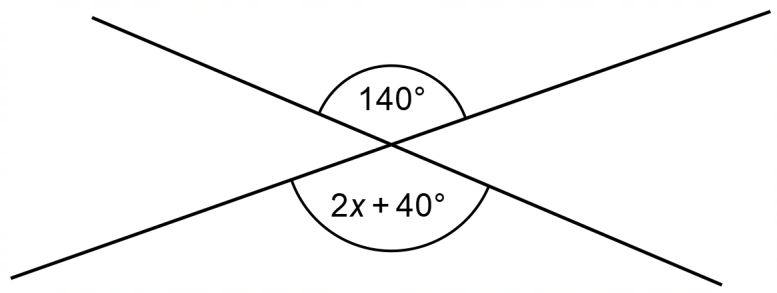
QUESTION 3 – GEOMETRY OF STRAIGHT LINES

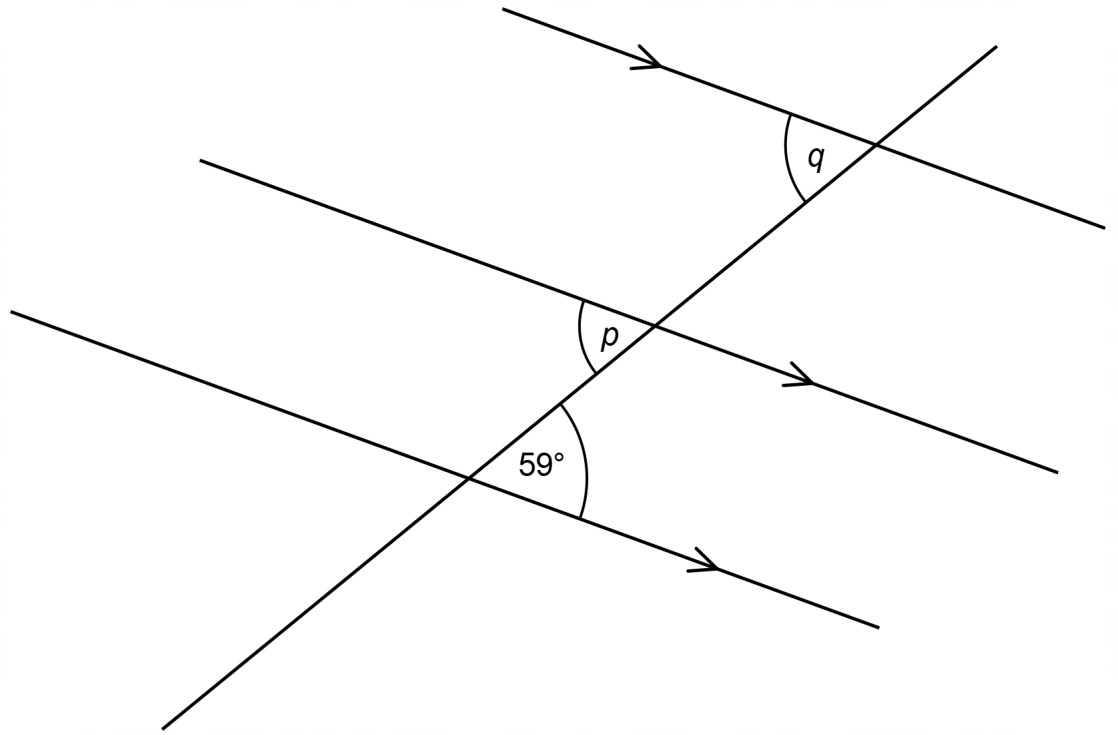
3.1 Solve for x giving a reason (2)



3.2. Solve for x giving reasons (3)

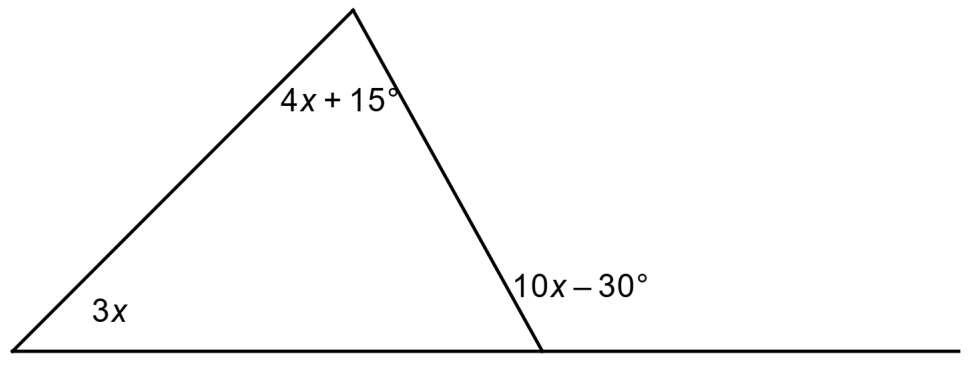


3.3 Determine p and q giving reasons: (3)

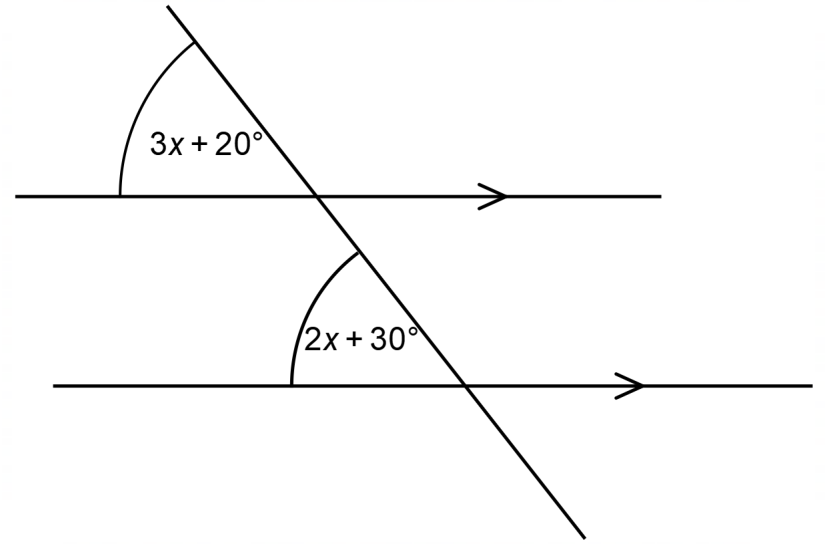


3.4 Solve for x giving reasons: (3)

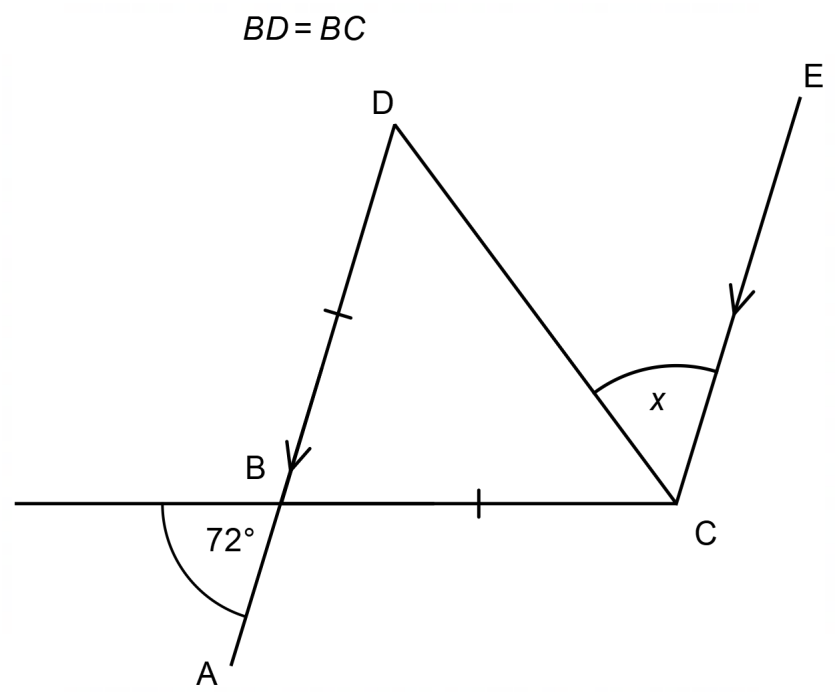
a)



b) (2)



3.5 Solve for *x* giving reasons: (5)



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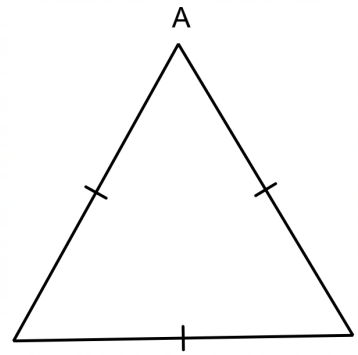
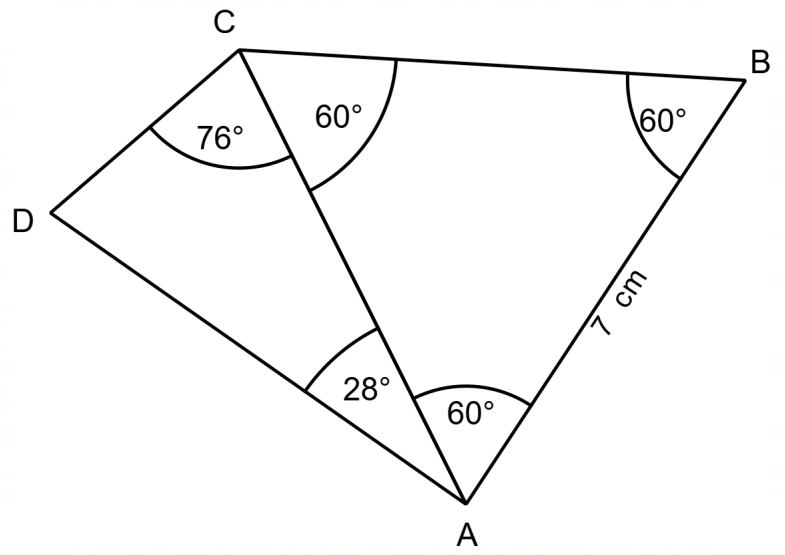
QUESTION 4 – GEOMETRY OF 2D SHAPES

4.1 Give reasons and find

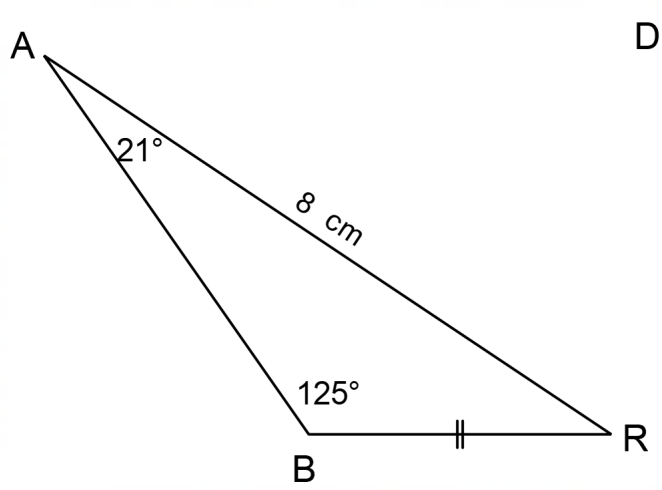
a) $\hat{A}$ (1)

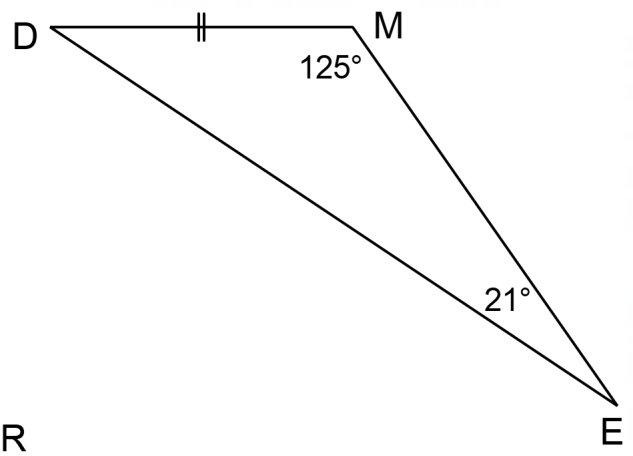


b) AD (3)

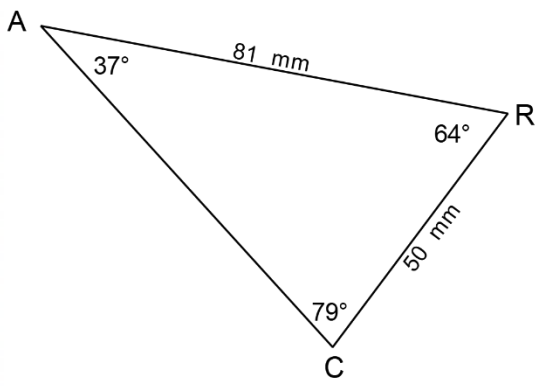


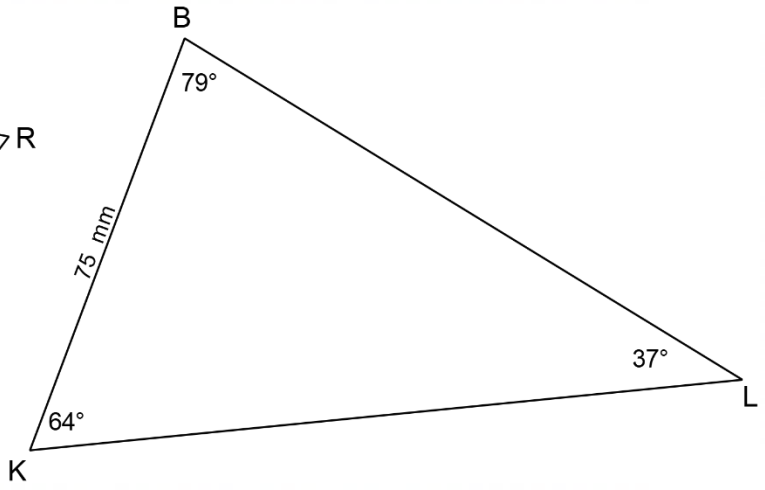
4.2 Determine DE giving all reasons. (4)



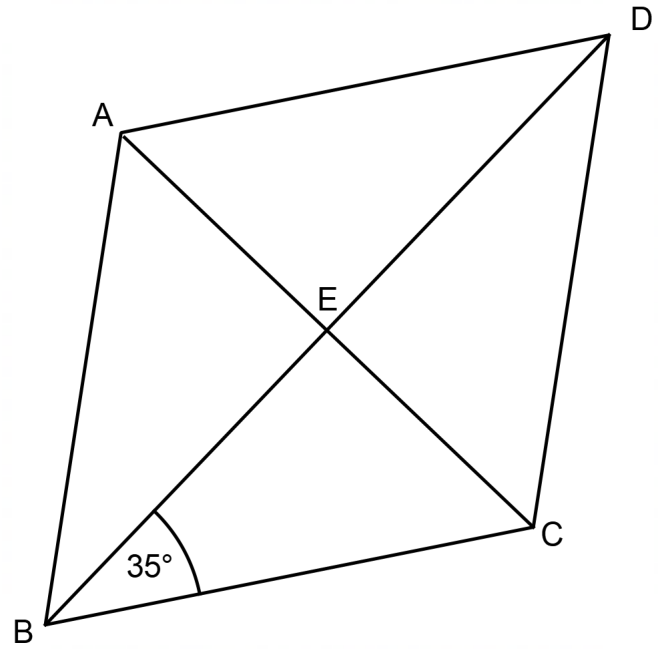


4.3 Determine the length of LK to one decimal place giving all reasons. (5)





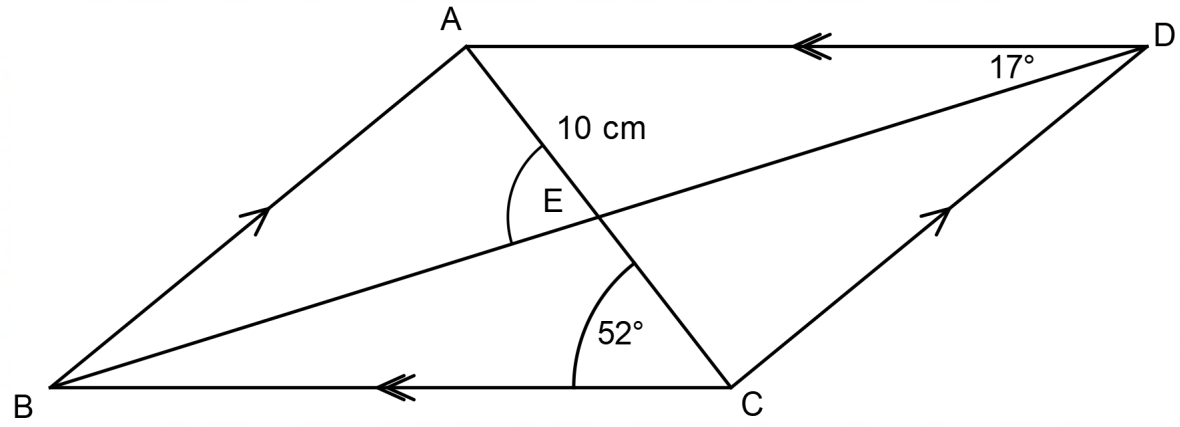
4.4 ABCD is a rhombus



a) Find, with reasons $E\hat{C}B$ (3)

b) Find, with a reason $A\hat{B}E$ (2)

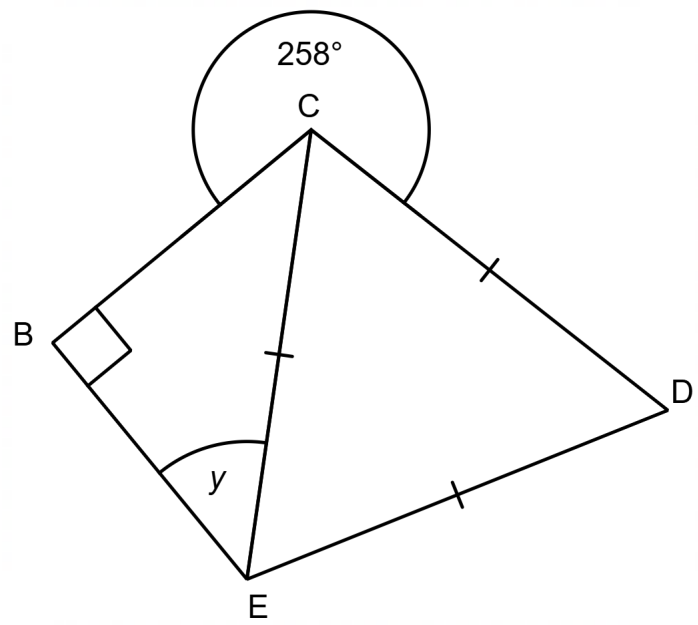
4.5 Consider the diagram below. ABCD is a parallelogram. ED is 10 cm.



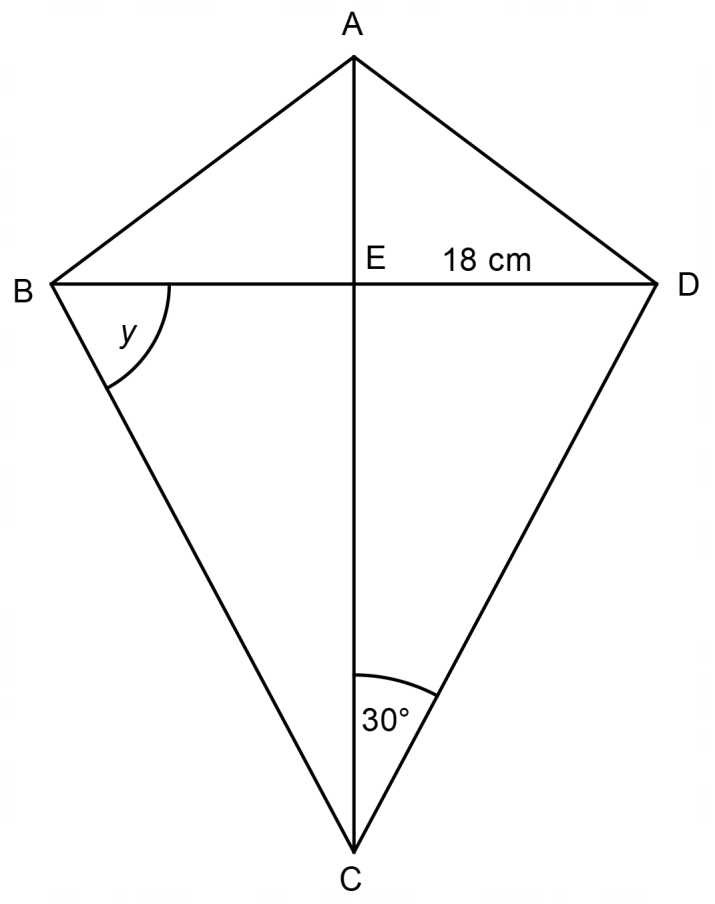
a) Give the length of EC with a reason. (1)

b) Give the size of $\hat{AEB}$ giving all reasons. (4)

4.6 Determine the size of *y* giving reasons. (3)



4.7 ABCD is a kite. BE is 8 cm.



a) Give BE with a reason. (1)

b) Determine the size of *y* giving all reasons. (3)

[30]

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