

# Year 7



## Practice Test

Topics: 1 - 9

Mark Scheme and revision:  
[www.addvancemaths.com/year7/](http://www.addvancemaths.com/year7/)

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<b>Name:</b>	
<b>Teacher:</b>	
<b>Score:</b>	

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### Instructions:

- Use a black or blue ballpoint pen.
- Answer all the questions in the spaces provided.
- You will need a ruler, protractor, pencil, and compass
- **Information:**
  - The marks for each question are shown in brackets.
  - The total mark available for this exam is 60.
- **Advice :**
  - Read each question carefully before you start to answer it.
  - Keep an eye on the time.
  - Try to answer every question.
  - Check your answers if you have time at the end.

## ***(Topic 1: Integers and BIDMAS)***

1. Calculate the following:

(a)  $-5 + 7 =$

2  
.....  1

(b)  $5 - (-35) =$

40  
.....  2

(c)  $-6 \times -7 =$

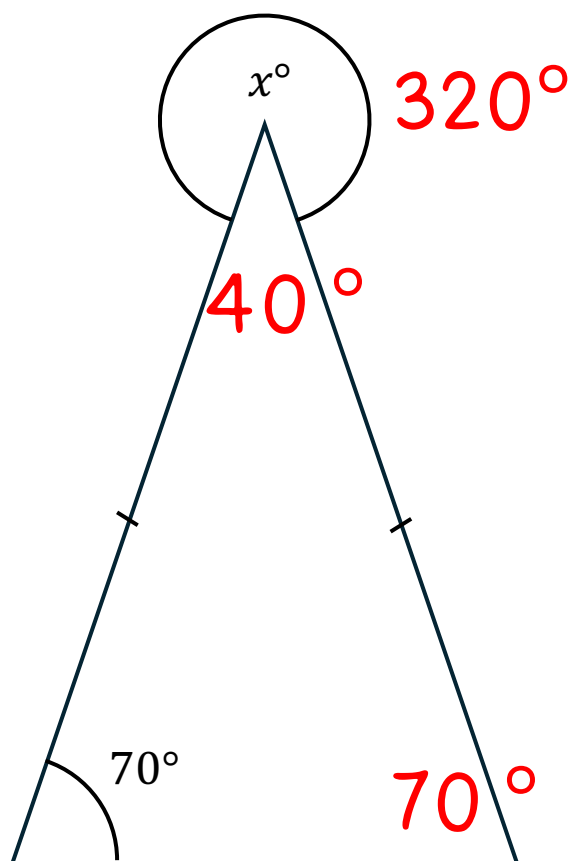
42  
.....  2

(d)  $(-3)^2 + 5 \times -2$

-1  
.....  3


2. Look at the picture.

Find the size of the angle  $x$ .



3. If  $a = 5$  and  $b = -3$ , evaluate the following expression leaving your answer in its simplest form:

(a)  $a^2 - b =$

28  2

(b)  $2b^2 =$

50  2

(c)  $\frac{10 - ab}{a} =$

5  3

4. Simplify the following expressions.

(a)  $3a + 4a$

$7a$   
.....  1

(b)  $9x - 9x$

(c)  $5m^2 + 12 - 3m + m^2 - m$

$0$   
.....  3

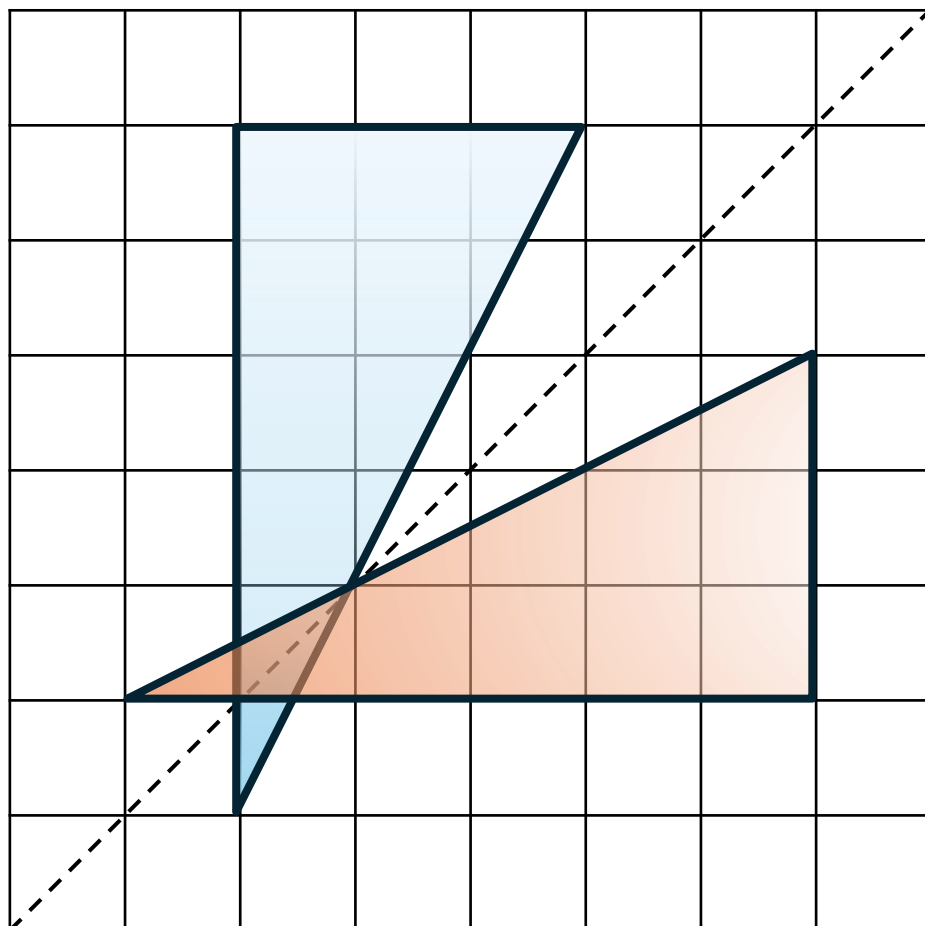
(d)  $ab + 9a - 10ab$

$6m^2 - 4m + 12$   
.....  3

$9a - 11ab$   
.....  3

5. Reflect the triangle in the dotted line.

Use a ruler and pencil.



6. Simplify these fractions fully.

(a)  $\frac{100}{200}$

$$\frac{1}{2}$$

.....  2

(b)  $\frac{360}{450}$

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

.....  2

(c) Put the following fractions in order from smallest to largest.

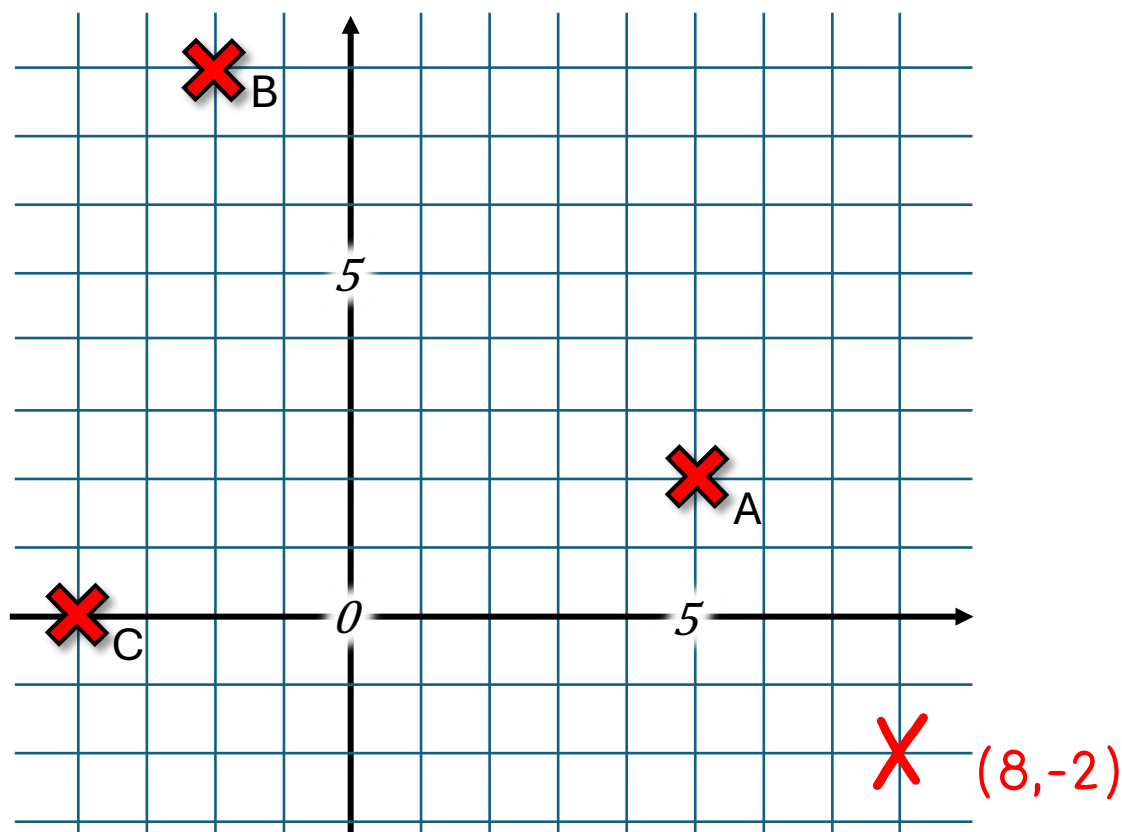
We recommend showing your working.

$$\frac{1}{2}, \frac{2}{5}, \frac{7}{15}, \frac{5}{6}, \frac{17}{30}$$

$$\frac{2}{5}, \frac{7}{15}, \frac{1}{2}, \frac{17}{30}, \frac{5}{6}$$

## (Topic 3: Symmetry and Coordinates)

7. Look at the following grid.



a) Write the Coordinates of the Following points:

A:  $(5, 2)$

B:  $(-2, 8)$

C:  $(-4, 0)$

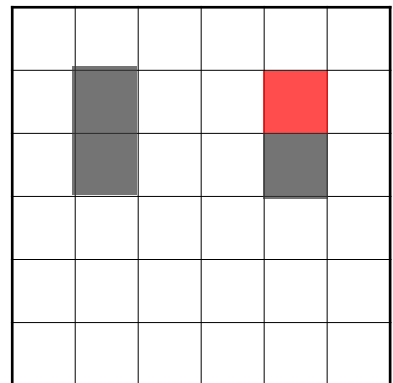
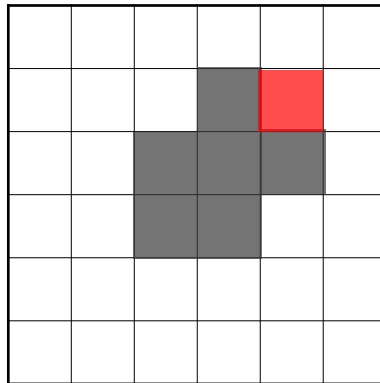
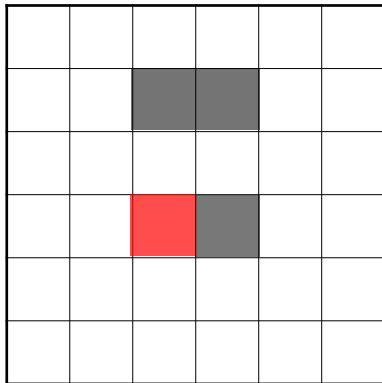
3

b) Mark with an X the coordinate  $(8, -2)$ .

2



8. (a) Shade the required squares for the final shape to have a rotational symmetry of 2 (one square per diagram).



(3)

(b)

I. What is the rotational symmetry of a square:

4 ..... 1

II. How many lines of symmetry does a regular pentagon have:

5 ..... 1

III. What is the rotational symmetry of a kite:

1 ..... 1

9. (a) Round 98 to the nearest ten.

100 ..... 1

(b) Round 23.87 to the nearest integer.

24 ..... 1

(c) Round 384.9231 to 4 significant figures.

384.9 ..... 1

9. a) Evaluate:

$$5^3 =$$

125  1

b) Evaluate:

$$\sqrt{81} =$$

9  1

Look at the list of numbers below.

10	23	63	980	12	14	8	15
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Using only numbers from the list, write down:

c) A factor of 28.

14  1

d) A multiple of 9.

63  1

e) A prime number.

23  1

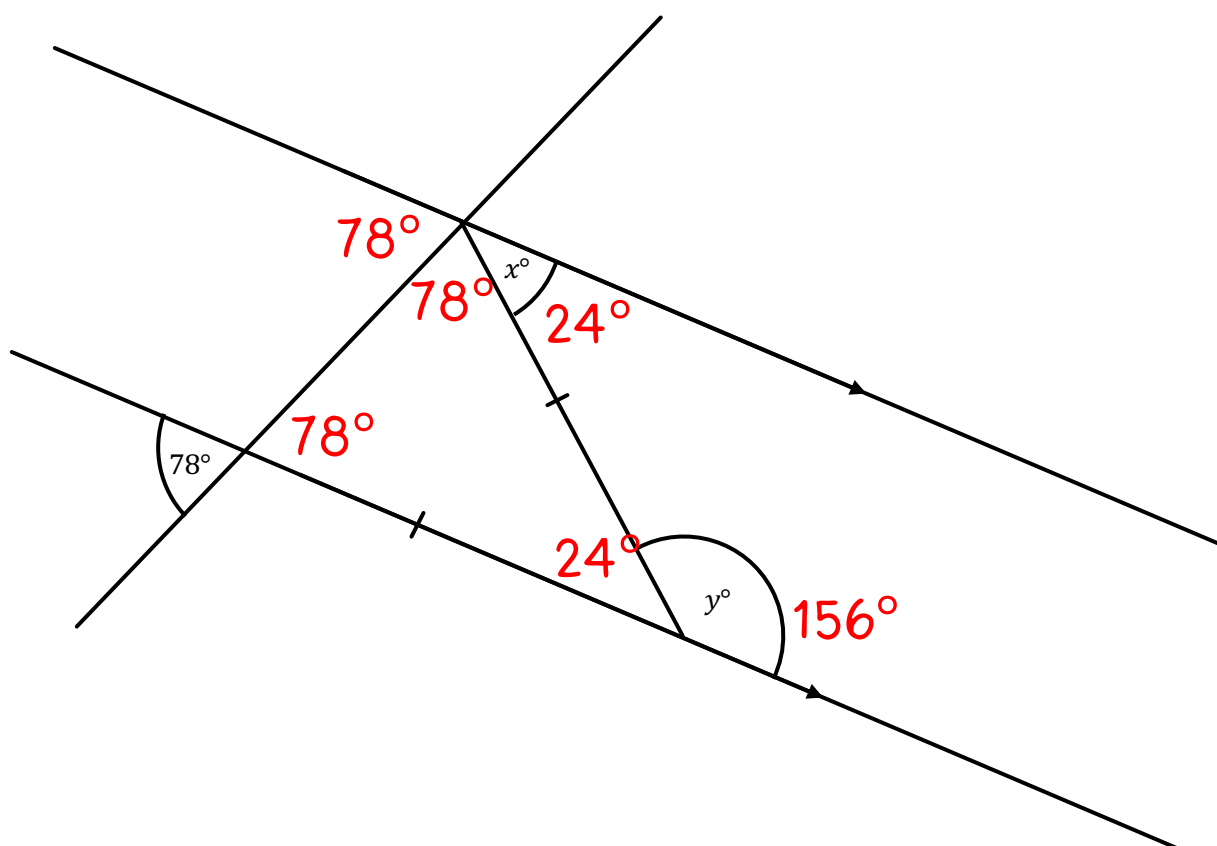
f) A cube number.

8  1

g) A number that is a multiple of 5 and odd.

15  1

10. Find the size of angles  $x$  and  $y$ .



$x : 24^\circ$  

$y : 156^\circ$  

How did you revise for the exam? (tick all that you did)

Reading class notes ☐

Online practice ☐

Doing practice questions ☐

☐ Getting help from your teacher

☐ Recapping the previous exam

Study group (with friends) ☐

Reading textbooks ☐

Watching videos ☐

Were these revision techniques useful? (circle your answer)



Yes



A bit



No

How could you revise more effectively next time?

List three topics from this test that you are good at, and three that need more work.

1.)

5.)

2.)

5.)

3.)

6.)

*"Failure is the stepping stone to success"*

Revision Guidance & Resources

[advancemaths.com/revision](https://advancemaths.com/revision)



Detailed revision guides  
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