

Year 7 Maths Homework

Each week there is to be homework set, due in the day the teacher requests.
The topics for each week are listed below.

Week	Homework number	Topic
1		Year 7 test
2	1.1	Factors, multiples and prime numbers.
3	1.2	Negative numbers
4	1.3	Properties of shapes
5	1.4	Angles
6	1.5	Construction of shapes
7	1.6	Expressions and Formulae – simplifying
8	1.7	Equations and Formulae – substitution
9	1.8	Review of half term
10	1.9	Sequences
11	1.10	Fractions, decimals and percentages
12	1.11	Percentage of amounts
13	1.12	Ratio and proportion
14	1.13	Revision for key assessment
15		Key assessment week

✓ **The Key Assessment is taken in the last 3 weeks of term** and will include a selection from all topics this term, as well as others from throughout the year.

✓ Please note: The date given is the date which the work is being taught in class. The due date may well be the following week and is at the individual teachers discretion.

✓ Each homework is divided into 3 sections, A B & C.

A is for **all** pupils to attempt.

B is slightly harder and for **most** pupils to attempt.

C is the higher level work for **some** pupils to attempt.

(Your teacher will tell you which parts you should work up to)

✓ **ONLY SPEND AROUND 30mins!** If you are struggling, try using mymaths, if this doesn't help then ask someone who can, preferably your maths teacher (BEFORE IT IS DUE IN!)

✓ Almost every other week is a Mymaths based homework. These are to be done online using your own login and password.

✓ The initial school login is **testwood** and password is **pentagon** (this may change)

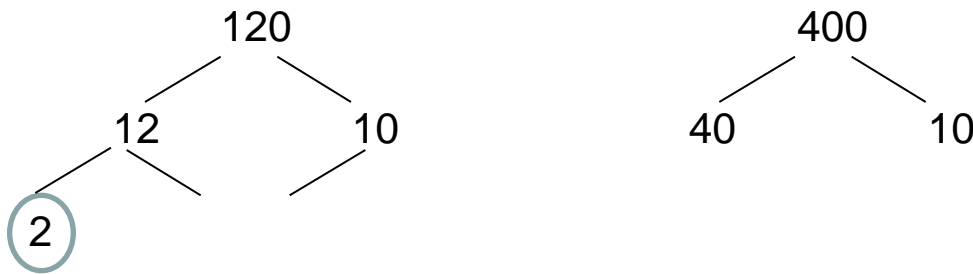
✓ Please remember to click 'checkout' at the end so your work is submitted.

✓ If you do not have the internet at home please use the learning resource centre (open until 4pm Monday – Thursday, 3.30pm Friday)

Homework 1.1: Factors, multiples and prime numbers

- A. Write out
- i) All the factors of 10
 - ii) All the factors of 18
 - iii) The 1st 5 multiples of 7
 - iv) The 1st 5 multiples of 15
 - v) The 1st 5 prime numbers

B. Complete the prime factorisation of i) 120 ii) 400



C. Find the HCF and LCM of 90 and 120 using prime factorisation.

Homework 1.2: Negative numbers

– you only need to do one (A=easiest, C=Hardest)

A. Negative Numbers 1

<http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=negatives/negatives1OH&taskID=1069>

B. Negative Numbers 2

<http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=negatives/negatives2OH&taskID=1068>

C. Negative Numbers OW

<http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=fourbooster/ow2NegativeNumbers&taskID=62>

Homework 1.3: Properties of shapes

– you only need to do one (A=easiest, C=Hardest)

A. Describing
Shapes

<http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=shape/describingShapesOH&taskID=1390>

B. Properties of
Triangles

<http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=shape/trianglesOH&taskID=1130>

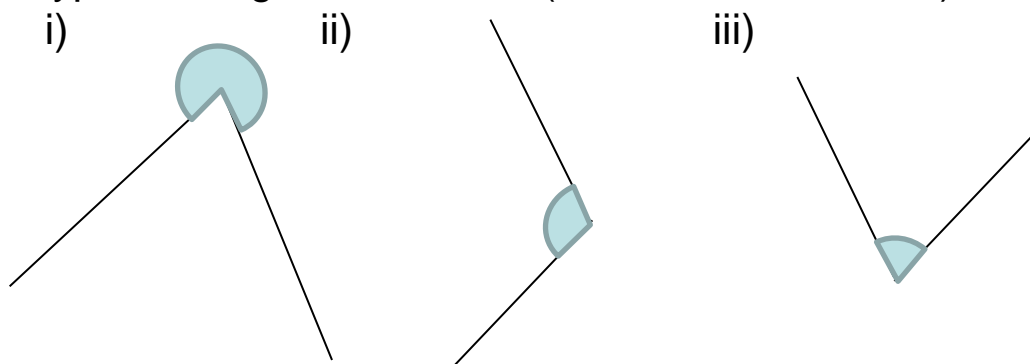
C. Lines and
Quadrilaterals

<http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=shape/LinesQuadsOH&taskID=1102>

Homework 1.4 – Angles

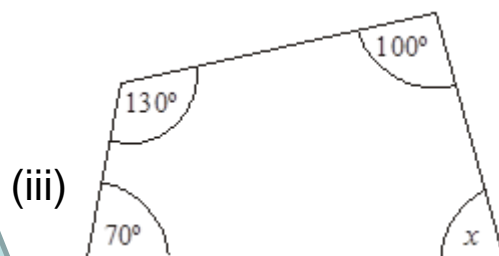
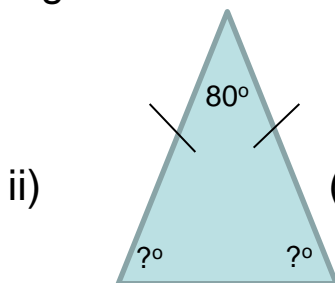
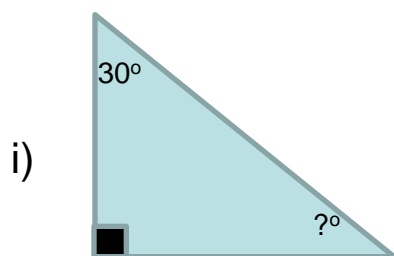
Week 5

A. What types of angles are these (acute, obtuse, reflex)



B. Measure each of the angles in part A with a protractor.

C. Calculate the missing angles:



Calculate the value of x .

Mymaths.co.uk Homework

Homework 1.5: Constructing shapes

Week 6

– you only need to do one (A=easiest, C=Hardest)

A. Constructing
Triangles

<http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=constructions/constructTrianglesOH&taskID=1090>

B. Constructing
Shapes

<http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=constructions/constructOH&taskID=1089>

C. Construction
Online Worksheet

<http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=gcseFoundation/ow16construct&taskID=216>

Homework 1.6 – Expressions and Formulae- simplifying

A. Simplify these

i) $a + a + a + a =$

ii) $b + b + b =$

iii) $5c + 3c =$

iv) $10d - 4d =$

v) $9p - p =$

B. Multiply these letters by the given amount

i) $4a \times 2 =$

ii) $6b \times 10 =$

iii) $2c \times 5 =$

iv) $5d \times 3 =$

v) $4e \times 20 =$

C. Multiply these terms together:

i) $a \times a =$

ii) $b \times a =$

iii) $c \times c \times c =$

iv) $2d \times 3d =$

Homework 1.7 – Equations and formulae: Substitution

A. Substitute $a = 3$ and $b = 2$ into the following:

i) $2a =$ ii) $5b =$ iii) $ab =$
 iv) $2ab =$ v) $a - b$ vi) $b - a =$

B. Substitute $c = 10$ and $d = 7$ into the following:

i) $cd =$ ii) $5cd =$ iii) $c - d =$
 iv) $3c - 2d =$ v) $3d + 2c$ vi) $d - c =$

C. Substitute $e = 5$ and $f = 4$ into the following:

i) $e^2 =$ ii) $f^2 =$ iii) $ef^2 =$
 iv) $e^2 - f^2 =$ v) e^3 vi) $f^3 =$

Homework 1.8: Review of Half Term

– you only need to do one (A=easiest, C=Hardest)

A. Factors and
Primes

<http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=multiples/factorsOH&taskID=1032>

B. Sequences

<http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=sequences/sequencesOH&taskID=1173>

C. Angle Sums

<http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=angles/anglesumsOH&taskID=1082>

Homework 1.9: Sequences

– you only need to do one (A=easiest, C=Hardest)

- A. Sequences <http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=sequences/sequencesOH&taskID=1173>
- B. Nth Term <http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=sequences/sequencesOH&taskID=1173>
- C. Sequences
Online Worksheet <http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=boosters/ow7Sequences&taskID=7>

Homework 1.10 – Fractions, decimals and percentages

A. Write these decimals as percentages:

- i) $0.9 =$ ii) $0.53 =$ iii) $0.42 =$
 iv) $0.07 =$ v) $0.175 =$ vi) $0.11 =$

B. Write these percentages as fractions in their simplest form:

- i) $50\% =$ ii) $75\% =$ iii) $20\% =$
 iv) $80\% =$ v) $60\% =$ vi) $5\% =$

C. Order these fractions decimals and percentages from lowest to highest:

- $\frac{4}{5}$ 15% 0.76 21% $\frac{1}{3}$ 0.0009 $\frac{5}{20}$

Homework 1.11: Percentages of amounts

– you only need to do one (A=easiest, C=Hardest)

A. Percentage of Amounts 1 <http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=percentages/percentagesamountsOH&taskID=1030>

B. Percentage of Amounts 2 <http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=percentages/percentageSumsOH&taskID=1031>

C. Percentage Change 1 <http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=percentages/PercentageChangeOH&taskID=1060>

Homework 1. 12 – Ratio and Proportion

A. Write the ratio of Grey to White in these boxes in their simplest form:

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B. Write these ratios in their simplest form:

- i) 40:10 ii) 5:35 iii) 18:12
 iv) 27:45 v) 33:21 vi) 100:80:60

C. Divide the amounts in the given ratio

- i) £72 4:5
 ii) £800 1:7
 iii) £55 6:5

Homework 1.13: Revision for Key Assessment:

- A. Algebra <http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=boosters/ow6AlgebraicExp&taskID=6>
- B. Formulae <http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=formulae/formulaeOH&taskID=1158>
- C. Proportion <http://www.mymaths.co.uk/tasks/library/loadTask.asp?title=boosters/ow5Ratio&taskID=5>