

Name: _____

Homework - Powers and Roots

Question 1

State the values of the following:

a) 4^2

b) 10^2

c) 12^2

Question 2

State the values of the following

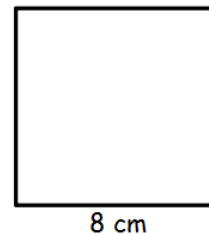
a) $\sqrt{36}$

b) $\sqrt{25}$

c) $\sqrt{121}$

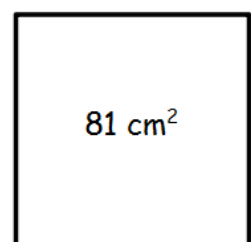
Question 3

State the area of the square with sides 8 cm.



Question 4

State the length of the square with an area of 81 cm^2



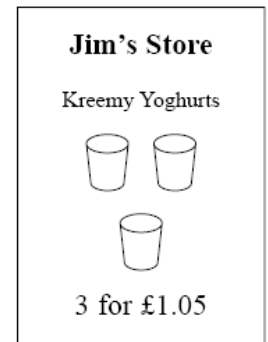
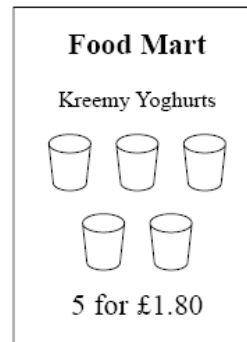
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Homework - Money

Question 1

Two shops sell Kreemy Yoghurts

At which shop are Kreemy Yoghurts the better value for money? Explain by showing all your working.



Question 2

The exchange rate is £1 to \$1.44

a) I want to change £1500 to dollars. How many dollars would I get?

b) On returning from America I have \$270 and change them back into pounds. I got £200, what was the exchange rate?

Question 3

I bought a new kitchen costing £8495. I took out a Hire Purchase contract agreement. I paid a deposit of £900 and £450 a month for 18 months.

How much would I have saved if I had paid cash ?

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Homework - Multiples and Factors

Question 1

Write down the first 8 multiples of 6

Question 2

Write down all the factors of 36

Question 3

Write down the lowest common multiple of the following:

a) 5 and 6

b) 8 and 10

Question 4

Write down the highest common factor of the following:

a) 20 and 24

b) 12 and 20

Question 5

Find all the prime factors of 20

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Homework - Patterns

Question 1

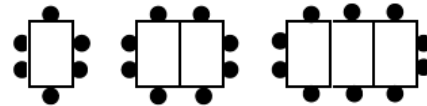
Write down the next two terms of the sequences:

a) 16, 20, 24, 28,

b) 93, 90, 87, 84,

Question 2

In a canteen the tables are set out like this:



a) Complete the table below:

| | | | | | | |
|------------------|---|---|---|---|---|---|
| Number of tables | 1 | 2 | 3 | 4 | 5 | 6 |
| Number of seats | 6 | 8 | | | | |

b) Using S for seats and T for tables. Complete the following formula:

$$S = \underline{\hspace{2cm}} \times T + \underline{\hspace{2cm}}$$

c) How many seats would be required for 17 tables?

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Homework - Solving Equations

Question 1

Solve the following equations for x

a) $3x - 1 = 13$

b) $4x + 3 = 27$

c) $5x - 7 = 2x + 2$

d) $4x - 8 = 2$

e) $4(x + 1) = 3$

f) $\frac{1}{3}x + 2 = 7$

Question 2

Solve the inequalities

a) $3x - 4 \leq x + 2$

b) $3(2x - 1) > 15$

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Homework - Angles

Question 1

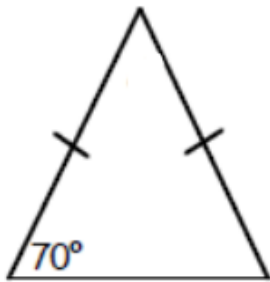
a) What is the complementary angle of 72° ?

b) What is the supplementary angle of 119° ?

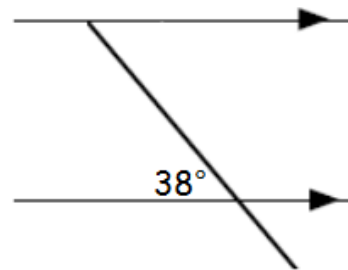
Question 2

Fill in all the missing angles

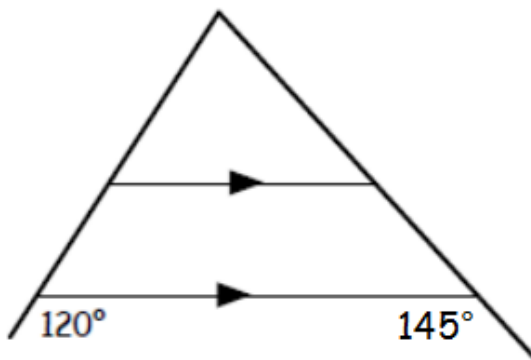
a)



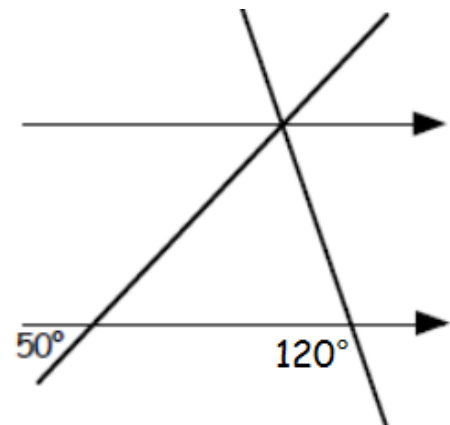
b)



c)



d)



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Homework - Fractions

Question 1

Change the following to a mixed number

a) $\frac{12}{7}$

b) $\frac{35}{9}$

Question 2

Change the following to an improper fraction

a) $3\frac{2}{7}$

b) $1\frac{3}{5}$

Question 3

Multiply the following questions and simplify where possible

a) $\frac{4}{7} \times \frac{7}{8}$

b) $2\frac{2}{3} \times 1\frac{6}{7}$

Question 4

Divide the following questions and simplify where possible

a) $\frac{4}{5} \div \frac{24}{25}$

b) $3\frac{2}{5} \div 1\frac{1}{2}$

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Homework - Scale Drawing

Question 1

Write the 3-figure bearing for:

a) North West

b) South East

Question 2

A toy truck has been made to a scale :- **1 cm to 1.5 m.**

If the length of the toy truck is 6 cm, what is the length of the **real** truck ?

Question 3

This lighthouse has been drawn using a scale of 1cm to 12m.

How high is the real lighthouse?

