Maths Extenders

A stimulating resource for the upper primary years providing extension activities for early finishers.
Ages 10 - 12
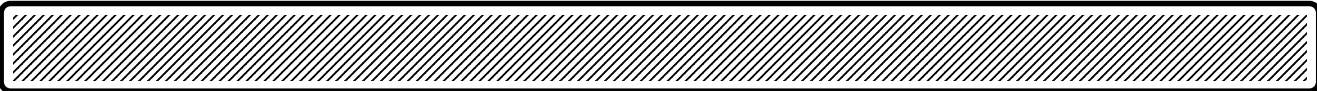
Samplers

# Contents

In the Hen House

In a hatchery there are always 500 birds. If there are 110 more hens than roosters ...

a. How many hens and how many roosters would there be?

_____ *hens* _____ *roosters* = 500 altogether.

Now try these. Remember, there is always a total of 500 birds.

b. 60 more hens than roosters = _____ *hens* _____ *roosters*

c. 210 more hens than roosters = _____ *hens* _____ *roosters*

d. 96 more hens than roosters = _____ *hens* _____ *roosters*

e. 14 more hens than roosters = _____ *hens* _____ *roosters*

f. 332 more hens than roosters = _____ *hens* _____ *roosters*

g. 1 more hen than roosters = _____ *hens* _____ *roosters*
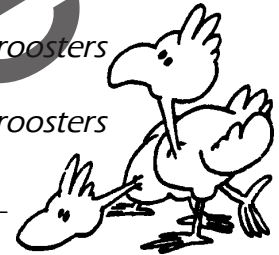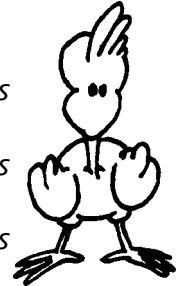
Will the final problem work? Why/Why not? _____

Calculations

Use a calculator to help locate the missing signs.

a. 900 ☐ 300 ☐ 40 = 15

b. 67 ☐ 33 ☐ 29 = 2182

c. 72 ☐ 12 ☐ 12 = 72

d. 30 ☐ 15 ☐ 45 ☐ 8 = 480

Which is the largest and by how much?
6^4 or 4^6 _____ by _____

Think Quick!

Potato chips cost 80c per 100 grams. How much would one tonne cost?

100g
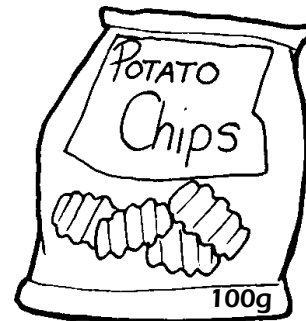
Answer: $_____

? Who was Pythagoras? _____

? List four facts about him.

? • _____ • _____

? • _____ • _____

? Can you explain his theorem? (Use the back of this page.)

Patterned Response

a. Place the numbers 1 to 7 so each line is equal.

b. Can you see the pattern? Now repeat using 11 to 17.

c. Now try 21 to 27.
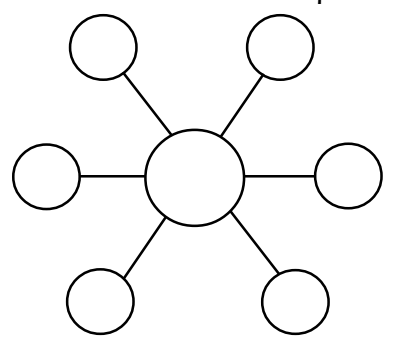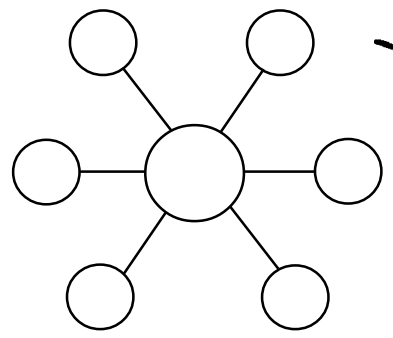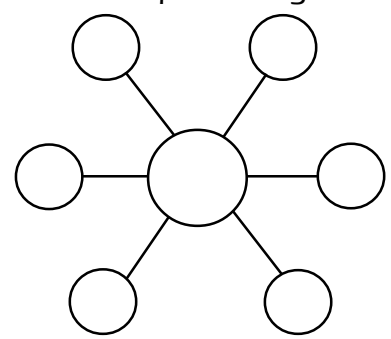
d. Now try 331 to 337.
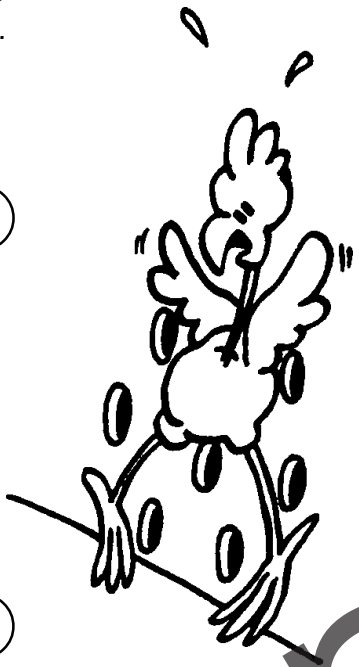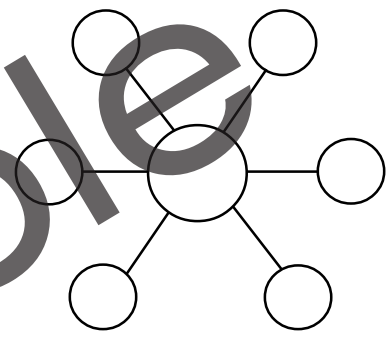
Square Up

Place the numbers 1, 2, 3, 4, 5 so that each large shape (box) adds up to 6. Use each number only once.
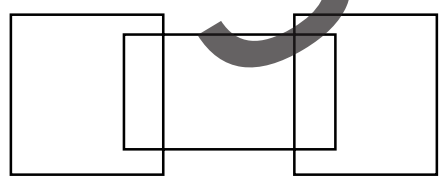
Now try 21, 22, 23, 24, 25 to equal 46. Explain your results _____
_____
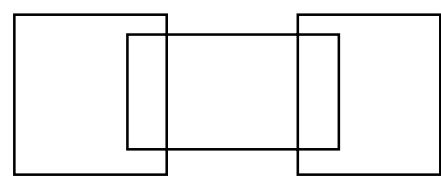
Patterns

Find the rule then complete the first grid. Create your own pattern in the second grid and challenge a friend to complete.

20	4		9
36	6		
		2	14
	5	2	
72		12	
	5	20	25

? Who was Archimedes?

? On the back of this sheet list six facts about him and explain his principle.

Sign Of The Times

A sign writer charges the following rates to paint letters.

A = $1.00	**B** = $2.00	**C** = $3.00	**D** = $4.00	**E** = $5.00
F = $6.00	**G** = $7.00	**H** = $8.00	**I** = $9.00	**J** = $10.00
K = $11.00	**L** = $12.00	**M** = $13.00	**N** = $14.00	**O** = $15.00
P = $16.00	**Q** = $17.00	**R** = $18.00	**S** = $19.00	**T** = $20.00
U = $21.00	**V** = $22.00	**W** = $23.00	**X** = $24.00	**Y** = $25.00
Z = $26.00				

What would the following signs have cost?

For Rent $_____

Save $_____

Zoological Gardens $_____

Stop $_____

Create signs costing the following values.

$12.00 $18.00 $38.00 $72.00

Find 20 words costing less than $20.00

_____ $ ____   _____ $ ____

_____ $ ____   _____ $ ____

_____ $ ____   _____ $ ____

_____ $ ____   _____ $ ____

_____ $ ____   _____ $ ____

_____ $ ____   _____ $ ____

_____ $ ____   _____ $ ____

_____ $ ____   _____ $ ____

_____ $ ____   _____ $ ____

_____ $ ____   _____ $ ____

Think Quick!

Paint costs $2.20 per 50mls. How much would it cost for a 2.5 L tin?

Answer:

$_____

? Which is smallest and by how much?
5^3 or 3^5

_____

_____

Squaring up

Find the pattern and complete these squares.

3		12
	6	30
15		18

9		63
		28
63		

	9	
		18
	54	24

		27
	8	
30		24

These add up

Using the digits 0, 1, 2, 3, 4, 5 complete these sums.

e.g.
```
   14          41
   20          25
+  35        + 03
   69          69
```

```
    _____        _____        _____
    _____        _____        _____
+   _____    +   _____    +   _____
    87            87            87
    _____        _____        _____
```

```
    _____        _____        _____
    _____        _____        _____
+   _____    +   _____    +   _____
    96            96            96
```

Discount

A video shop offers 25% off all games. Can you work out their new prices?

'Street Fighter' was **$122.00**

Now:$_____

'NBA Jam' was **$139.00**

Now:$_____

'Mario Bros' was **$98.00**

Now:$_____

'Sonic' was **$112.00**

Now:$_____

Research Time

What is a 24 hour clock? _____

Where is it used? _____

Complete this chart using the 24 hour clock.

	OUR TIME	24 HOUR TIME
a.	3.27 pm	
b.		2400
c.	11.49 pm	
d.	8.11 am	
e.		1321

???????????? How many seconds in a week?

_____