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Educational Consultants

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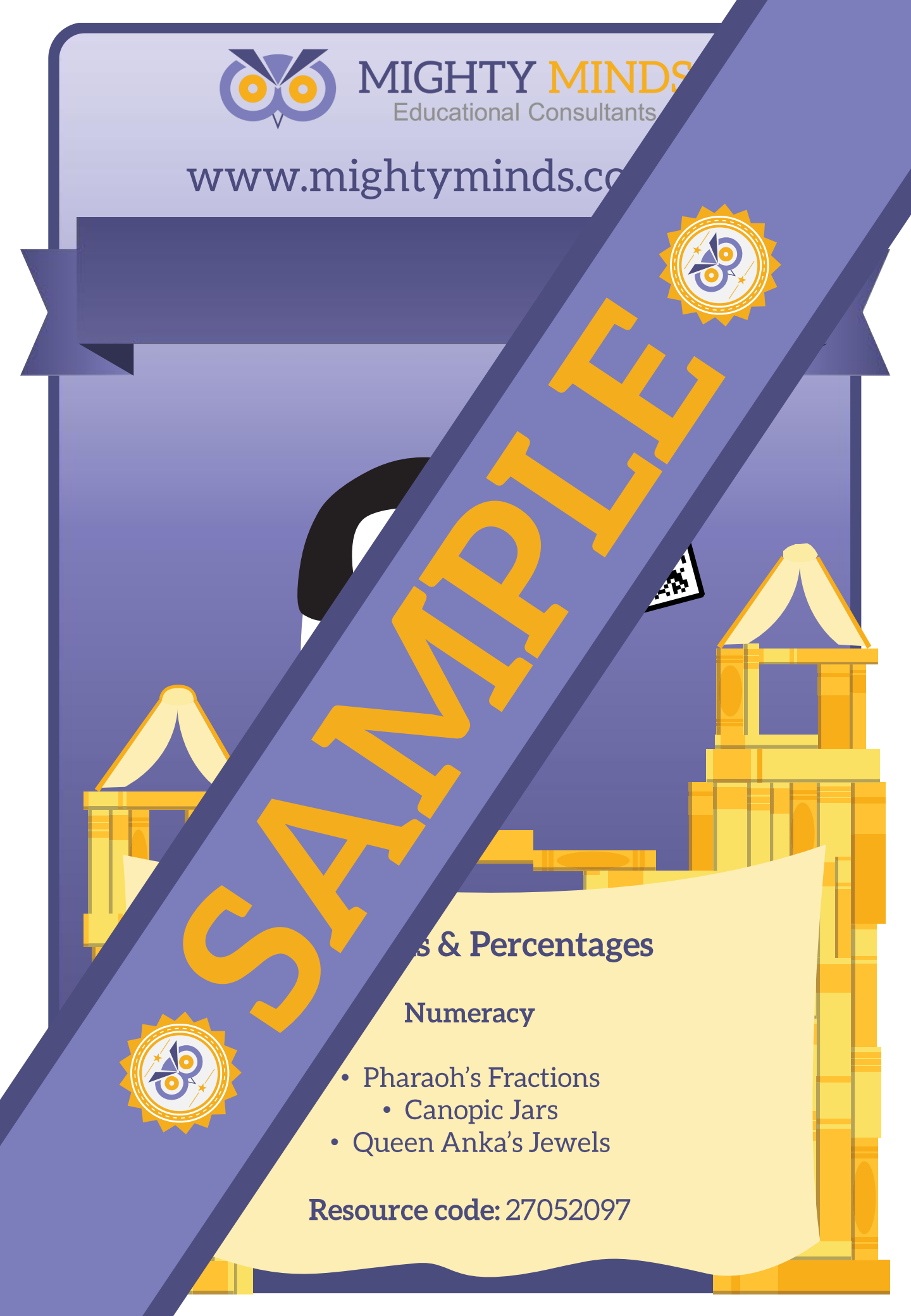


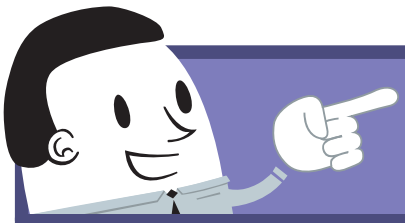
SAMPLE

s & Percentages

Numeracy

- Pharaoh's Fractions
- Canopic Jars
- Queen Anka's Jewels

Resource code: 27052097



Pharaoh's Fractions

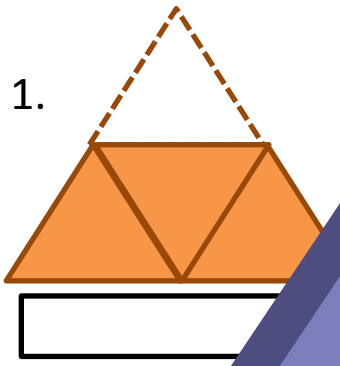
During excavations in Egypt, a remarkable discovery was
a document dating back to 1650 BCE, revealed that Egyptian
utilised fractions to solve mathematical problems.

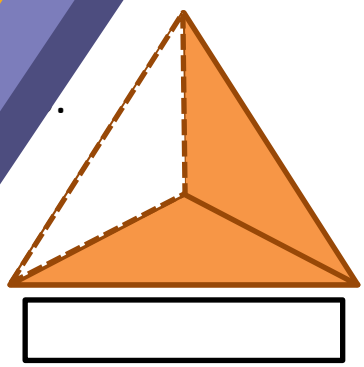
Q1 Using the Siamun's diagrams of the nine pyramids an
which pyramid belongs to who and write their name

Pharaoh Siamun has commissioned his slaves to build nine n rs
but he can't remember which pyramid is which! Fortunatel the
fraction of each person's pyramid that is complete.

Siamun	½	Queen Anka	
Hori	¾	Tepi	3
Aye	$^{2}/_{4}$	Ahmose	$^{1}/_{4}$

1.





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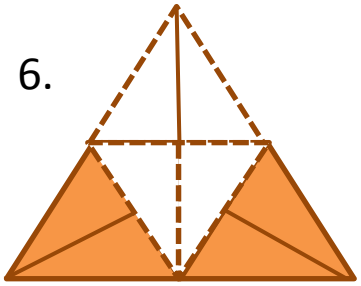

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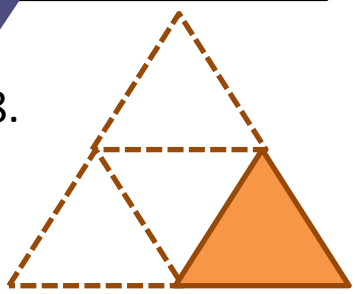

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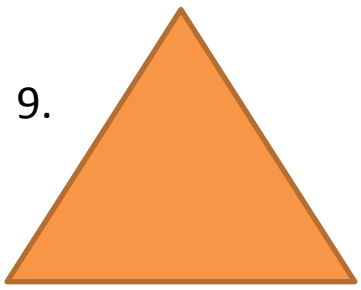

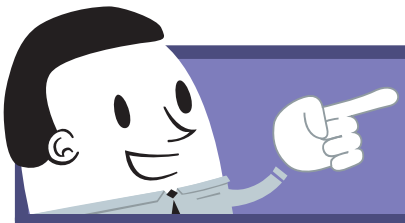

Canopic Jars

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the following table for each character by filling in the
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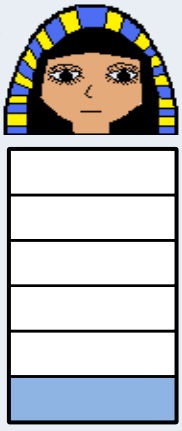
a)



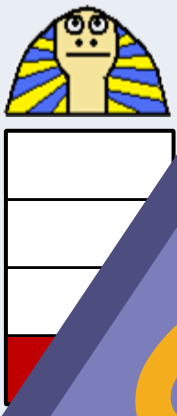
Fraction:

$\frac{1}{6}$

Percentage:

$\frac{1}{6} \times 100$

c)



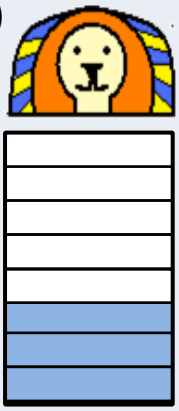
F

Fraction:

Percentage:

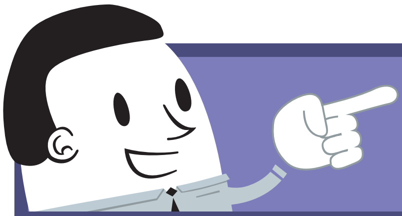
20%

f)



Fraction:

Percentage:



Queen Anka's Jewels

Many ancient artefacts dating back to ancient Egyptian ti... discovered. ***Some of these include jewellery, which was oft... mummies.***

Q1 Thieves have stolen Queen Anka's jewels! To find the... according to the following instructions.

...ges of:

4/8	50/100	50%	5/15	9/18	10/2...	...60	40/80	7/14	200/400				
1/3	1 ÷ 2	1 ÷ 2											
5/10	2 ÷ 6	½	...%	40/80	4/8	500/1000	6/12						
33.3%	4...	3/4	1 ÷ 2	3/6	1/2								
50%	6/8	3/4	4 ÷ 8	50%	9/18								
½	75/100	9/12	¾	6/8	½	1/2	4/8	75/100					
¾	3/4	6/8	3/4	75%	2/3	¾	9/12	6/8	12/16	¾	1/2	9/12	
3÷4	75%	9/12	4/6	66.6%	¾	75%							
3/12	1/4	2/8	4/16	200/800	6/24	25%	5/20	¼	25%	¼	6/24	30/120	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FOR THE TE

Mighty Minds Lesson Inst

'Fundamentals' Lesso

Firstly, thank you for your support of Mighty Minds and our reso
quality resources that are both educational and engaging, and
works.

To assist you in using this resource, we have compiled s

About this resource

This Mighty Minds 'Fundamentals' Lesson focus ests and
presents this skill through a theme from the Au Geography).
This lesson is also targeted at a certain skill l mpleting work
that is suited to them.

How to use this resource

Our 'Fundamentals' Lessons are sp contain different types of
resources.

The student workbook contain
- The main title page; and
- The blank student work

The teacher resources
- This set of instruct
- The Teacher's C be needed to teach the lesson;
- The Item Desc e lesson and its aims, as well as extension ideas;
- The studer ponses on the student worksheets to ensure that ansv
- The te nore detailed explanation of the model responses or an
- Fin

W book (the first set of pages) for the students. If students a , you may also like to provide them with the student answer

ng us

s that if you email us with suggested changes to any lesson, we will send you the revised lesson – free of charge.

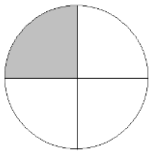
o resources@mightyminds.com.au and we'll get back to you as soon as we

Fractions and Percer

Students often have trouble remembering how to work with frac
fundamental skills, so it is essential that they are explicitly tau
to independently practise them. The following worksheets im
important part of the learning experience for students is co
discussing which is the right answer and why the others

Explaining Fractions

A fraction is part of a whole. For example, the s
s one part of
a possible four parts that could be shaded. It i
r a
denominator, i.e. $\frac{1}{4}$. Similarly, $\frac{11}{8}$ means one
rts.



= 1/4

1/8

Fractions must be reduced t
e by dividing the numerator and
the denominator by their hi
non factor is the greatest possible
number that goes into bo
e.g. 60 and 100
hich goes into them 3 and 5 times
respectively;
he highest common factor you will find
there will b
after you have simplified the fraction. You
can keep
mplest fraction.)

It is easy to c
ixed numbers. To convert a mixed number to
an imprope
he denominator and add the numerator, then
place this

Wh
y need to have the same denominator. To do so, find the
lo
tors. This means the lowest possible number that both
e new denominator. Multiply each fraction's numerator and
e denominator to the lowest common multiple.
sible multiple that both 3 and 4 go into is 12, which means that 12
ultiple. The sum then becomes: $\frac{(1\times4)}{(3\times4)} + \frac{(2\times3)}{(4\times3)} = \frac{4}{12} + \frac{6}{12} = \frac{10}{12} \rightarrow \frac{5}{6}$.

This teaching guide is continued on the next page...

...This teaching guide is continued from the previous page.

When multiplying fractions simply multiply both numerators by
result obtained when multiplying both denominators togethe
e.g. $\frac{1}{3}$ x $\frac{2}{4}$ = $\frac{(1\times2)}{(3\times4)}$ = $\frac{2}{12}$ → $\frac{1}{6}$.

When dividing fractions, flip the second fraction aroun oth
numerators by each other and place them over the

E.g. $\frac{3}{7}$ divided by $\frac{5}{8}$ = $\frac{3}{7}$ x $\frac{8}{5}$ = $\frac{(3\times8)}{(7\times5)}$ = $\frac{24}{35}$

Explaining Percentages

Percentages are used in shops to sho s the amount of body
fat they have compared to their over st or loan rates; schools
use them to calculate how well stu asters use them to predict
the likelihood of rain or snow. A represents the number as a
portion of 100. For example, 1 f 100. 2.5% = $\frac{2.5}{100}$, which
equals 0.025 as a decimal.

Converting be s

To transform a score e by the total score and multiply by 100.
For instance, a sco ntage of (18 ÷ 20) x 100 = 90%. This is
also true of fracti ommonly used fractions and the percentages
they represent %, $\frac{1}{2}$ = 50%.

C

Fracti epresent probability, i.e. the chance of an event
occ , there is a one in two chance of it landing on heads. This
c culating the likelihood of a series of independent events, i.e.
imultaneously, the chance of each event must be multiplied
a coin three times, to determine the probability of getting three
$\frac{1}{2}$ = $\frac{1}{8}$. When calculating the likelihood of mutually exclusive
culate the likelihood of either one of them happening) add their
mple, if there were 8 jellybeans in a bag, 2 green, 2 blue and 4 yellow,
green or yellow jellybean is $\frac{2}{8}$ + $\frac{4}{8}$ = $\frac{6}{8}$ = $\frac{3}{4}$.

Item Description

Please note: any activity that is not completed during class time undertaken at a later date.

'Pharaoh's Fractions', 'Canopic Jewels

- **Activity Description**:
  - This lesson has been designed to im… etween fractions and percentages in an Eg…
    - In the first activity, 'Pharac… to match fractions to their corresp… amids belong to which people.
    - The second activity, … plete a table by using one pieces of infor… information and complete a diagr…
    - In the third acti… ust use their knowledge of equivalent fra… en picture.
    - ***Purpos…***
      - … calculate and convert fractions and
    - ***K…***
    - …

… to another (α7)
… ut calculators (Φ16)

- **Suc…**

… proximately one hour to complete – 20 minutes per

- …

… coloured pencils. It would be a good homework activity … owed in class.

…ssion Questions:

… much about ancient Egyptian culture and customs? Have they heard of

This Item Description is continued on the next page...

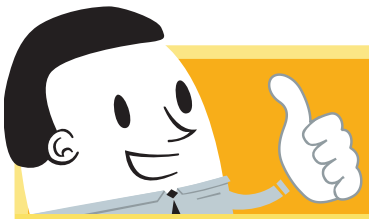
Item Description – continued

…This Item Description is continued from the previous page.

‘Pharaoh’s Fractions’, ‘Canopic
Jewels

- **Follow Up/ Class Discussion Questio**
  - How are fractions used in everyday
  - When was the last time students
    themselves?

ed one



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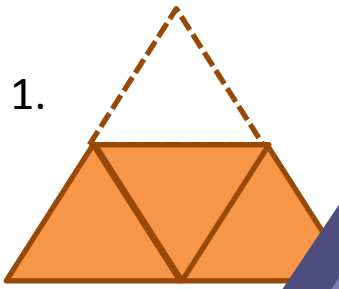
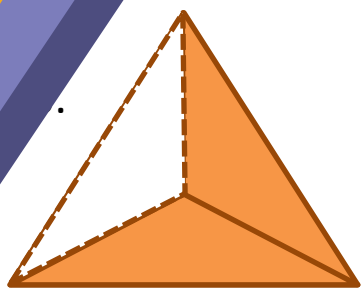


Hori

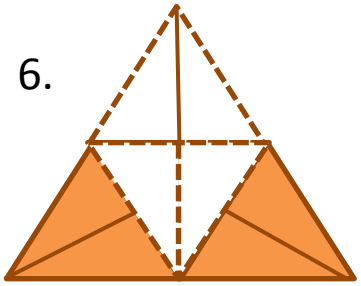


Tepi

4.

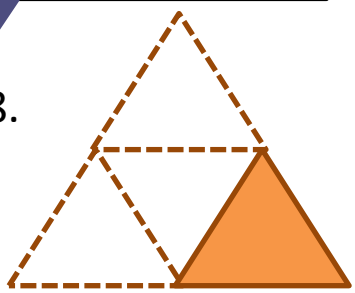
Siamun

6.



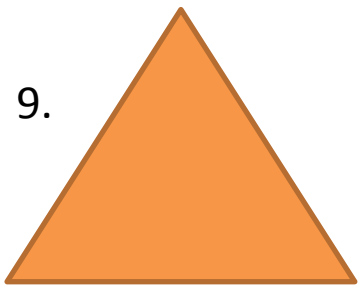
Neferet

8.



Ptah

9.



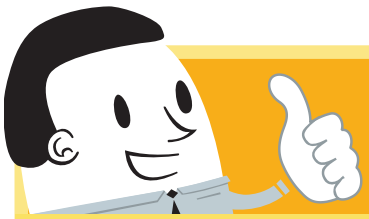
Queen Anka

Pharaoh's Fractions

Question One:

In this question, students were required to determine the own
their completion. They were provided with a table that had a
complete the question, and students simply had to match
corresponding name.

1. There are three parts shaded and four p
   mid is
   complete. This pyramid belongs to *Hor*
2. There are seven parts shaded and
   e pyramid is
   complete. This pyramid belongs t
3. There are two parts shaded, a
   of the pyramid is
   complete. This pyramid belo
4. There are two parts sha
   $\frac{2}{4}$ of the pyramid is
   complete. This pyrami
5. There are two part
   ore, $\frac{1}{2}$ of the pyramid is
   complete. This p
6. There are fou
   r; therefore, $\frac{4}{8}$ of the pyramid is
   complete. T
7. There is
   ether; therefore, $\frac{1}{3}$ of the pyramid is
   compl
8. Th
   ogether; therefore, $\frac{1}{4}$ of the pyramid is
   c
9. re, the pyramid is complete and is a whole (1).
   Queen Anka.



Canopic Jars

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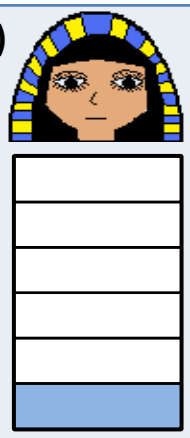


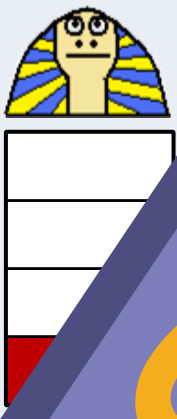
Fraction:

$\frac{1}{6}$

Percentage:

$\frac{1}{6} \times 100$

c)



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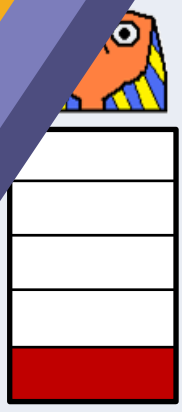


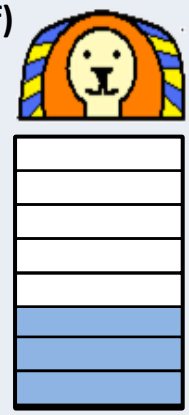
Fraction:

$\frac{1}{5}$

Percentage:

20%

f)



Fraction:

$\frac{3}{8}$

Percentage:

$\frac{3}{8} \times 100 = 37.5\%$

Fraction:

$\frac{1}{3}$

Percentage:

$\frac{1}{3} \times 100 = 33.3\%$

Canopic Jars

Question One:

In this question, students were required to use one piece of in… or diagram – to work out two other pieces of information.

a) There is one part shaded and six parts altog… filled is $\frac{1}{6}$. The percentage is calculated by: 1 ÷ …

b) The fraction is $\frac{3}{10}$, therefore *three* … the jar. The percentage is calculated by: *3* ÷ …

c) 25% is the same as $\frac{25}{100}$ and … n 25 and 100, so the fraction is simplified to … *coloured* in on the jar.

d) 20% is the same as … e of both 20 and 100 so the fraction is simp… *e coloured* in on the jar.

e) The fraction is … *be coloured in* on the jar. The percentage… *33.3%*

f) Three p… t parts altogether. Therefore, the fraction of th… culated by: *3 ÷ 8 x 100 – 37.5%*

Queen Anka's Jewels

Many ancient artefacts dating back to ancient Egyptian ti... discovered. ***Some of these include jewellery, which was oft... mummies.***

Q1 Thieves have stolen Queen Anka's jewels! To find the... according to the following instructions.

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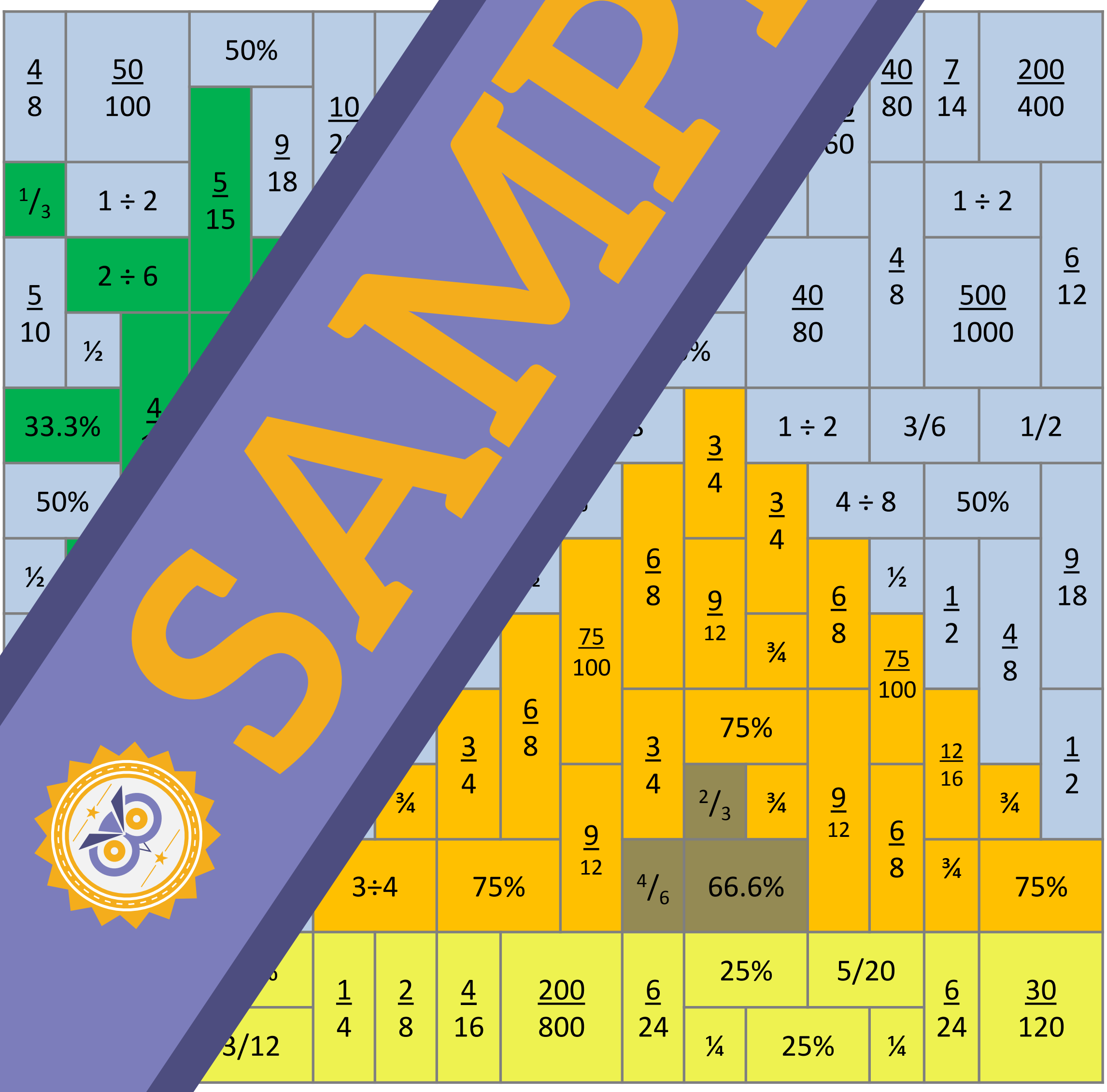
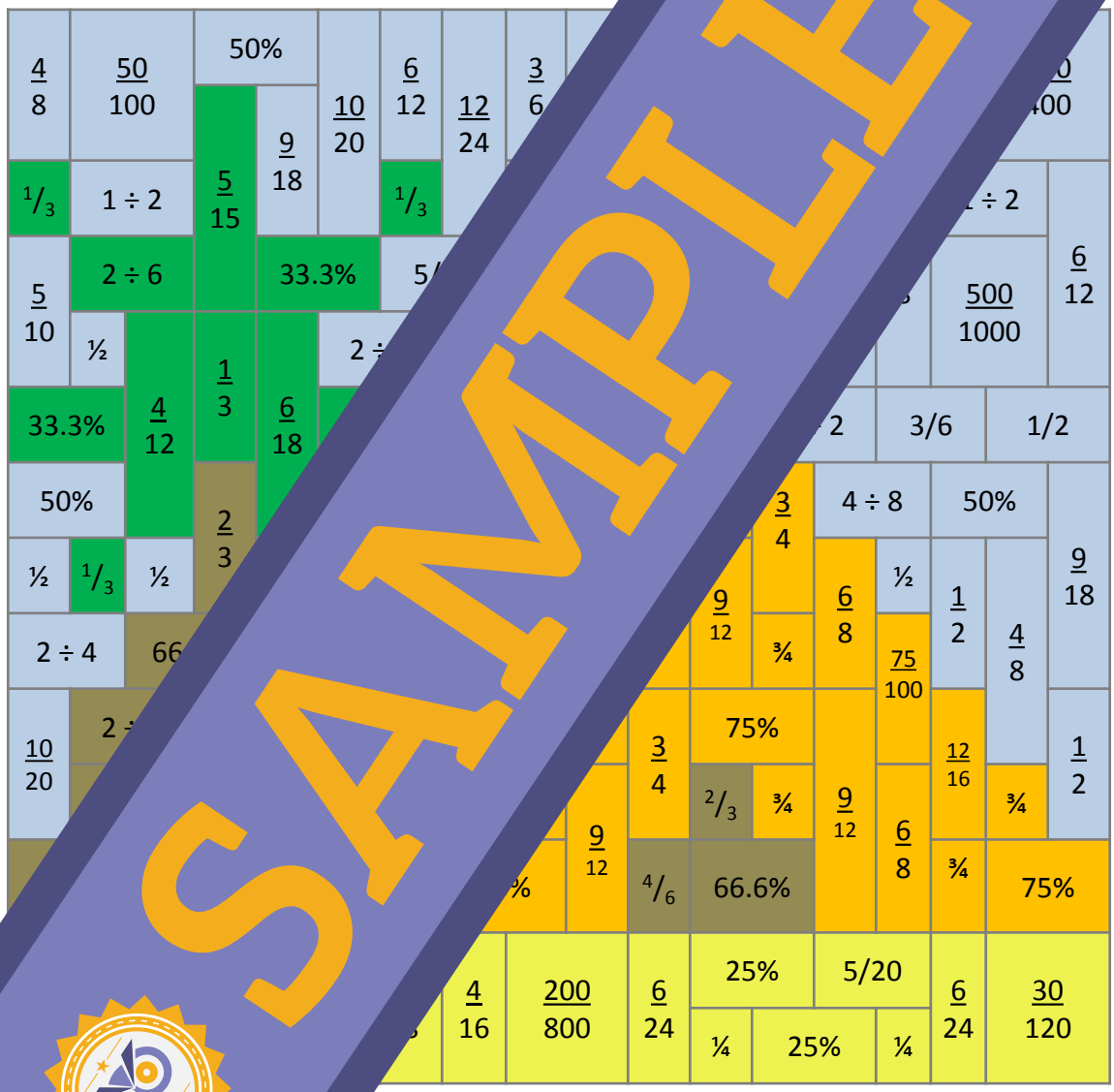


Queen Anka's Jewels

Question One:

In this question, students were required to colour in the grid u
fractions. The grid coloured according to equivalent fraction



End of Le

Plea

If you feel there
booklet for you t
class, you may
worksheet

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with your
ties (whole
heets) for

Alternati
to

entire worksheet
at a later date.