

# Using multiples to divide

## Worksheet

Today we are looking at the use of multiples to help us when dividing.

**Multiples are all the numbers a specific number can be multiplied into.**

eg. the multiples of 4 are 8, 12, 16, 20, 24, 28, etc.

When using multiples to divide, you are also using a technique known as partitioning. This involves splitting the number being divided into 2 parts that are easier to divide.

for example  $112 \div 8$ . We can partition 112 into 2 numbers that are easier for 8 to divide.

I know that  $80 + 32 = 112$

I also know that both 80 and 32 are multiples of 8.

so my equation would look like this

$$112 \div 8 = 80 \div 8 + 32 \div 8$$

I start by dividing 80 by 8

$$80 \div 8 = 10$$

then I divide 32 by 8 as well

$$32 \div 8 = 4$$

then I add my 2 answers together

$$10 + 4 = 14$$

$$\text{so, } 112 \div 8 = 14$$



# Warm up - Speedy multiples

## Try timing yourself!



Example:

double

double again

double again

x 1	17
x 2	34
x 4	68
x 8	136
x 10	170

x 1	15
x 2	
x 4	
x 8	
x 10	

x 1	24
x 2	
x 4	
x 8	
x 10	

x 1	32
x 2	
x 4	
x 8	
x 10	

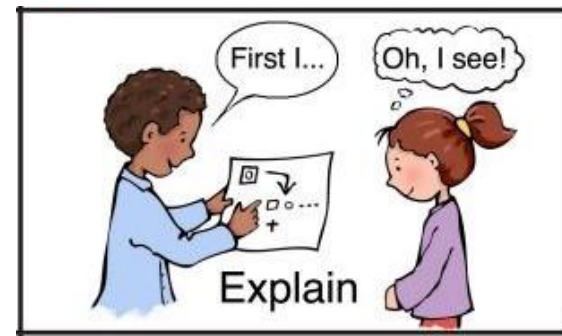
x 1	45
x 2	
x 4	
x 8	
x 10	



# Talk Task - Using multiples to divide

Represent each problem with an area model and then partition and calculate each part.

Record the steps of the strategy on an empty number line



There are six athletes in each race and 252 athletes competed in total. How many races were there?

There are nine swimmers in each race and 162 swimmers competed in total. How many races were there?



There are 60 athletes on each floor of an apartment block. There are 1920 athletes in the whole block, how many floors are there?



# Independent Task - Hunt for multiples



1. Hunt out the multiples of 15, 24, 32 or 45.
2. Use the multiples grids from the Do Now task.
3. Sort the numbers and generate statements.

672

930

1035

Sentence Stems

1890

792

448



\_\_\_ is divisible by \_\_\_ because

\_\_\_ is a factor of \_\_\_ because

\_\_\_ is a multiple of \_\_\_ because

576

288

900



X 1	15
X 2	30
X 3	45
X 4	60
X 5	75
X 6	90
X 7	105
X 8	120
X 9	135
X10	150

X 1	24
X 2	48
X 3	72
X 4	96
X 5	120
X 6	144
X 7	168
X 8	192
X 9	216
X 10	240

X 1	32
X 2	64
X 3	96
X 4	128
X 5	160
X 6	192
X 7	224
X 8	256
X 9	288
X 10	320

X 1	45
X 2	90
X 3	135
X 4	180
X 5	225
X 6	270
X 7	315
X 8	360
X 9	405
x 10	450



# Challenge Slide

Look at the example statements generated using the facts found within the tables.

What other numbers can you generate statements about?



x 1	15	150
x 2	30	300
x 3	45	450
x 4	60	600
x 5	75	750
x 6	90	900
x 7	105	1050
x 8	120	1200
x 9	135	1350
x 10	150	1500

$$930 \div 15 = 62$$

x 1	24	240
x 2	48	480
x 3	72	720
x 4	96	960
x 5	120	1200
x 6	144	1440
x 7	168	1680
x 8	192	1920
x 9	216	2160
x 10	240	2400

$$792 \div 24 = 33$$

x 1	32	320
x 2	64	640
x 3	96	960
x 4	128	1280
x 5	160	1600
x 6	192	1920
x 7	224	2240
x 8	256	2560
x 9	288	2880
x 10	320	3200

$$672 \div 32 = 21$$

x 1	45	450
x 2	90	900
x 3	135	1350
x 4	180	1800
x 5	225	2250
x 6	270	2700
x 7	315	3150
x 8	360	3600
x 9	405	4050
x 10	450	4500

$$1890 \div 45 = 42$$



# Kensuke's Kingdom

By Michael Morpurgo

## Inference

An inference is an educated guess or assumption based on evidence.

When answering questions it is always good to provide evidence for why you have assumed this.

e.g Sarah felt the warm wind rush through her hair as she swung her swing higher and higher towards the bright blue sky.

I can infer from this that Sarah is at a park because she is swinging on a swing.

I can also infer that it is the summertime because the wind is warm and the sky is blue.

All questions are based on chapter 4 pg 52 - 59

Don't forget to include evidence in your answers.

1) How do you think Michael feels about being all alone on an island (pg53)?

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2) Why did having Stella with him calm Michaels panic (Pg 54)?

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3) Why was important for Michael and Stella to find food and water?

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4) How was Michael feeling when they were walking through the forest (pg 56)?

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# Writing a Diary Entry

## Vocabulary

Read through the example text and find some examples to fill in the table below.

	Examples
<p><b>When?</b> The date, yesterday, today, tomorrow, on the weekend</p>	
<p><b>Where?</b> at home, in the garden, inside, outside, at the park</p>	
<p><b>Who?</b> I, we, mum, dad, grandma, grandpa, uncle, aunt, cousin, brother, sister</p>	
<p><b>What?</b> Went, travelled, visited, saw, looked, swimming, cinema, played</p>	
<p><b>How?</b> Drove, flew, ran, walked, rode</p>	
<p><b>Feeling?</b> Happy, sad, excited, bored, tired</p>	

12th June 2019

Dear Diary,

Today has been the best day ever as Dad took me and my brother to the theme park! We arrived at 9am and my brother and I jumped out of the car and ran to the entrance with Dad just behind us. We gave the entrance person our ticket and in we went. I was jumping up and down I was that excited. We went on a few rides to start like the merry go round, the fun house and the tea cups. Dad spun the teacups round so fast and my brother and I had tears in our eyes and our sides hurt from laughing.

At midday we arrived at The Crazy Spinner roller coaster. I had always wanted to go on it but I had always been too small. I was ecstatic when Dad measured my height and I was taller than the line. We ran in the line. I was giddy but then, as we got closer, my tummy started to get butterflies. I looked at the big drops and people screamed as they whizzed past. I started to feel a little sick. As we got to the front, Dad took hold of my hand and said if I didn't want to go on I didn't have to. I almost said yes but then I saw how excited my brother was. We boarded the ride and they strapped us in. We were off. I was so scared as it slowly travelled up the first hill. Then it whizzed down the drop and I loved it! I screamed happily and even put my hands up in the air holding Dad's hand. As soon as we got off the ride, we ran straight back into the queue and rode it another three times!

It was the best day ever and I had so much fun with my Dad and brother. We got a balloon each at the end of the day and we even got to have an ice cream. When I sat in the car I realised how exhausted I was and within two minutes I was fast asleep.

I will write again tomorrow. See you for now.

Kimmy

## Geography

What are the countries of Asia?

Here is a map of the five regions:



The continent of Asia is the largest on Earth. Asia covers around 30% of Earth's total land area. It is located in the Eastern and Northern Hemispheres. Because of the size of Asia, it is often divided into five regions. These are Central Asia, East Asia, South Asia, Southeast Asia, and Western Asia. Within each of these areas there are a number of countries.

1) How much of Earth's total land area does Asia cover?

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2) In which Hemispheres can Asia be found?

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3) How many regions has Asia been divided into?

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Can you name all of them?

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There are 48 countries in Asia in total. These countries are Afghanistan, Armenia, Azerbaijan, Bahrain, Bangladesh, Bhutan, Brunei, Cambodia, China, Georgia, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Lebanon, Malaysia, Maldives, Mongolia, Myanmar (Burma), Nepal, North Korea, Oman, Pakistan, Palestine, Philippines, Qatar, Russia, Saudi Arabia, Singapore, South Korea, Sri Lanka, Syria, Tajikistan, Thailand, Timor-Leste (East Timor), Turkey, Turkmenistan, United Arab Emirates, Uzbekistan, Vietnam, and Yemen. China has the largest population closely followed by India. Both countries have a population of over a billion people. Brunei and the Maldives have the smallest populations of less than 600,000.

4) How many countries are there in Asia?

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5) Which country has the largest population?

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Which has the second largest?

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6) Which 2 countries have a population of less than 600,000

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Using this map. Can you name a country from each region?

Central Asia:

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East Asia:

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South Asia:

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Southeast Asia:

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Western Asia:

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