

Hello again Year 3. This week has again demonstrated some of the excellent home learning that you have been completing at home. There have been some fantastic comparisons between Brazil and Alaska and lots of you have explored your interests along the way. This week we are going down under to look at a new country, Australia. Another interesting place to explore with lots of unusual and interesting animals to find out about. Please feel free to explore your interests with these countries, especially if you already know something about them. The more creative the ideas the better. Keep going Year 3, we are missing you all.

Mrs Marks Mr Mills Miss Davenport

**EVERY DAY**

Daily Maths lessons - <https://whiterosemaths.com/homelearning/>. Watch the video and then try the questions linked to it. This is 30-40 minutes work. **This week is ordering, adding, subtracting and solving problems with fractions.**

Hit the Button – 15-20 - <https://www.topmarks.co.uk/maths-games/hit-the-button> and use Mathletics to support the learning on White Rose- questions will be set linked to these videos.

Read for at least 15 minutes and complete an English task.

Additional tasks for this week (15/06/20)

<u>English</u>	<u>Topic</u>
<p><b><u>Around the World</u></b></p> <p><b><u>Monday</u></b> Complete the reading comprehension about the new country for this week, Australia. The text explains what summer is like in Australia and gives you some information on how the seasons change and the animals which live there. There are two different options to choose from and the answers are attached so you can check your answers.</p> <p><b><u>Tuesday</u></b> The Great Barrier Reef is the world’s largest coral reef system. It is found off the coast of Queensland, Australia. It is full of unusual creatures and plant life. You are going diving to explore the Great Barrier Reef. Watch the video and use your senses to describe what is around you as you dive. Think about what you can see, hear, feel, taste and touch on your adventure through the coral. Think about the expanded noun phrases you can create. Be adventurous with your word choices. Watch the video to explore the life throughout the Great Barrier Reef and to learn some cool facts to help you with your descriptions. <a href="https://www.youtube.com/watch?v=EJXeMDVNsRk">https://www.youtube.com/watch?v=EJXeMDVNsRk</a></p> <p><b><u>Wednesday</u></b> You are going on a trip to Australia. While you are there, you are going to send a postcard back to your family to tell them what you have seen. You can use the template attached or create your own version. Think about the places you would like to visit and talk about. Check out some of the great attractions to visit in this video. <a href="https://www.youtube.com/watch?v=f0PvMmTAUJQ">https://www.youtube.com/watch?v=f0PvMmTAUJQ</a> Feel free to do your own research to find out some other places to visit.</p> <p><b><u>Thursday and Friday</u></b> The recent fires in Australia have caused significant damage to the buildings, animals and people that are in the country.</p>	<p>During the week, please complete at least one of the following activities-</p> <p><b><u>Geography</u></b> On the map you have created or using the attached map, mark on the famous Australian landmarks. Use Google Earth to locate the different landmarks throughout Australia. Try finding some of the following landmarks: Sydney Opera House, Uluru, Great Barrier Reef, Bungle Bungle Ranges, Simpson Desert and Willandra Lakes. There are also many others to find. <a href="https://earth.google.com/web/@-13.71234018,-105.34813154,-1463.59681892a,25488113.86990071d,35y,-0h,0t,0r">https://earth.google.com/web/@-13.71234018,-105.34813154,-1463.59681892a,25488113.86990071d,35y,-0h,0t,0r</a></p> <p><b><u>Music/DT</u></b> Australian Aboriginal Rainsticks. Create your own version using any tube that you can find. It could be a Pringles tube or a toilet roll. Add some rice or pasta and then seal the ends. Then try making some music.</p> <p><b><u>DT</u></b> Create your own boomerang. Boomerangs were used by the Aboriginal people to go hunting or defend themselves. Use the attached template to help you with your design. To make it sturdier, you might want to use card or cardboard and the template to mark out your design.</p> <p><b><u>Art</u></b> Using dot painting, create your own Aboriginal art. You could choose to paint some Australian animals or famous landmarks. All you need is some paint and cotton buds to create the dots.</p>

Many famous people have raised money to help in repairing some of the damage that has been caused. Your task is to create your own way of raising money to help the Australian people and animals. You could create a poster that can be used to advertise your idea or perhaps a presentation on the computer. Make sure you include lots of reasons why people should help and think about what needs to be helped.  
<https://www.youtube.com/watch?v=MItRPAe7gHY>

Keep getting creative with your own inventions or ideas and post them to [Twitter@oldburypark](https://twitter.com/oldburypark).

## 1 Star Answers

# Answers

1. How long is summer?  
**Summer is three months long.**
2. Which season comes after summer?  
**Autumn comes after summer.**
3. Describe the weather in summer.  
**In summer, the weather it is hot and dry. Some parts of Australia can be humid.**
4. Name one way an animal might keep cool in summer.  
**Answers will vary but will include one of the following: Animals will keep cool in summer by staying in the shade, hardly moving, being active at night and licking themselves.**
5. Why do you think a plant may stop growing in the summer?  
**Answers will vary but may include: A plant might stop growing in summer to save energy and not use a lot of water.**
6. Why are snakes most active during the summer?  
**Snakes are most active in summer because they are cold-blooded and they need the heat to warm their bodies.**
7. Which fruits ripen during summer?  
**During summer, soft fruits, such peaches, tomatoes and strawberries, ripen, which means that they ready to eat.**
8. From what you have read in the text, which plant or animal adaptation is the most impressive? Explain your answer.  
**Answers will vary.**

# Summer in Australia

In Australia, the four seasons are summer, autumn, winter and spring. The seasons are identified by the group of calendar months that they belong to.

Season	Months	Weather
Summer	December, January and February.	The weather is hot. Some parts of Australia are humid and other parts are dry.
Autumn	March, April and May.	The weather becomes cooler.
Winter	June, July and August.	The weather is cold. Rain and storms are common. Some places in Australia get snow.
Spring	September, October and November.	The weather becomes warmer however it is still very mixed. There can be rain, wind and cool days.

## Animals in Summer

Native Australian animals have adapted to survive the Australian heat. Koalas stay still in the shade of a tree and wait for the heat to pass. Sugar gliders are nocturnal so they are active during the cooler nights. During the day, they curl up in the shade of the tree. In summer, kangaroos do not sweat so, instead, they lick themselves to keep cool. Snakes are most active in summer because they are cold-blooded and they need the heat to warm their bodies.



## Plants in Summer

Australian native plants have adapted to the summer weather in Australia. Plants with smaller leaves or spikes lose less water through evaporation. If a plant has spikes, it is less likely to be eaten by animals. Some plants will stop growing during summer. They may even look dead; however, they are just in a resting state so they can save energy in the heat. Finally, soft fruits, such as peaches, tomatoes and strawberries, ripen. This means that they are ready to eat in summer. This explains why these fruits are eaten during the summer.



# Questions

1. How long is summer?

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2. Which season comes after summer?

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3. Describe the weather in summer.

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4. Name one way an animal might keep cool in summer.

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5. Why do you think a plant may stop growing in the summer?

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6. Why are snakes most active during the summer?

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7. Which fruits ripen during summer?

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8. From what you have read in the text, which plant or animal adaptation is the most effective? Explain your answer.

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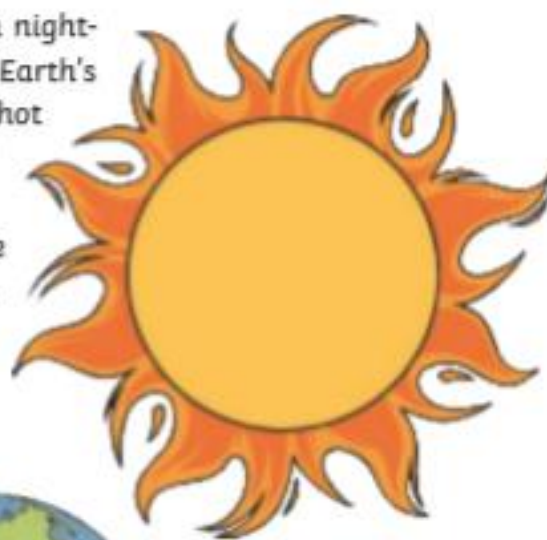
# Summer in Australia

## Seasons in Australia

Most people in Australia refer to the European four seasons: summer, autumn, winter and spring. Each season lasts for three months. In the tropical areas of Australia, many people refer to the wet and dry season, each lasting about six months. Indigenous communities have their own descriptions of seasons based on the weather and the impact this has on the animals, plants and land. These descriptions vary for different communities based on location. Some communities have five or six seasons. Overall, the number of seasons an area has depends on where a person lives in Australia.

## The Weather in Summer

During summer, there is more daylight than night-time hours. This is because of the tilt of the Earth's axis. In summer, the weather is generally hot and dry. However, it can be humid closer to the equator. The sun is extremely strong in the southern hemisphere compared to the northern hemisphere during summer so the risk of getting sunburnt is much higher. Australia is also prone to natural disasters like bushfires and cyclones during summer. As a result, the weather can be hostile during the summertime.



## Why Do We Have Seasons?

Seasons occur because when the Earth orbits the Sun, it is tilted  $23.5^\circ$  on its axis. For six months of the year, the South Pole is tilted towards the Sun. As a result, the days are longer and the weather is warmer in the southern hemisphere. During the Australian summer, the southern hemisphere is tilted towards the Sun. When the North Pole is tilted towards the Sun, the days are shorter in the southern hemisphere. The temperature will be cooler as well. This explains the changes between the seasons.



### Animals in Summer

Native Australian animals have adapted to survive the warm summertime temperatures in Australia. Koalas stay still in the shade of a tree and wait for the heat to pass. Sugar gliders are nocturnal so they are active during the cooler nights and avoid being active during the day by curling up in the shade of the tree. The kangaroo, another native Australian animal, does not sweat and instead licks itself to maintain a regular body temperature. Finally, snakes living in Australia are active in summer because they are cold-blooded animals. Therefore, they need to be outside in order to warm their bodies.



### Plants in Summer

Australian native plants have adapted to the weather conditions during summer. Plants with smaller leaves or spikes lose less water through evaporation. Some plants have adapted by growing spikes, which prevents them being eaten by primary consumers. Some plants cease growing during summer and, in some instances, appear to be dead; however, they are just in dormant state so that they save energy in the heat. Soft fruits, such as peaches, tomatoes and strawberries, are ripe and ready to eat in summer.



# Questions

1. How long is summer?

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2. Thinking about where you live, which way of describing seasons suits your home best? Why?

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3. Describe the weather in summer.

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4. Explain why the seasons occur.

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5. What are two ways an animal might keep cool in summer?

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6. Why do you think a plant may stop growing in the summer?

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7. Animals and plants change to stay cool in the summer. How do people stay cool in summer?

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8. Why do some plants grow spikes?

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9. Why are soft fruits eaten widely during the summer?

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10. Using information given in the text, which plant or animal adaptation do you think is the most effective?

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# Answers

1. How long is summer?  
**Summer is three months long.**
2. Thinking about where you live, which way of describing seasons suits your home best?  
**Answers will vary.**
3. Describe the weather in summer.  
**In summer, the weather is hot and dry. Some parts of Australia can be humid.**
4. Explain why the seasons occur.  
**Seasons occur because when the Earth orbits the Sun, it is tilted 23.5° on its axis.**
5. What are two ways an animal might keep cool in summer?  
**Answers will vary but will include two of the following: Animals will keep cool in summer by staying in the shade, hardly moving, being active at night and licking themselves.**
6. Why do you think a plant may stop growing in the summer?  
**Answers will vary but may include: A plant might stop growing in summer to save energy and not use a lot of water.**
7. Animals and plants change to stay cool in the summer. How do people stay cool in summer?  
**Answers will vary.**
8. Why do some plants grow spikes?  
**Some plants have adapted by growing spikes, which prevents them being eaten by primary consumers.**
9. Why are soft fruits eaten widely during the summer?  
**Soft fruits are eaten widely during the summer because they ripen, which means they are ready to eat.**
10. Using information given in the text, which plant or animal adaptation do you think is the most effective?  
**Answers will vary.**

Twelve vertical lines for writing.



Five vertical lines for writing.



# Descriptive Settings: Beaches, Sea and Waves

## What Can I Describe?

cliffs  
coast  
crest  
current  
docks  
driftwood  
fishermen  
horizon  
marina  
marine life  
rock pools  
sailors  
sandbar  
sand  
seabed  
seabirds  
shells  
shoreline  
tide  
vessels  
water

## How Can I Describe It?

boundless  
calm  
choppy  
crashing  
endless  
glassy  
golden  
heavy  
isolated  
mighty  
pebbly  
remote  
rocky  
secluded  
shallow  
tidal  
tropical  
turbulent  
uncharted  
undulating  
vast

## What Can It Do?

anchor  
break  
crash  
curve  
drift  
flourish  
flow  
haul  
overlook  
plunge  
rage  
ride  
rise  
roll  
sail  
slope  
stretch  
stroll  
surge  
sweep  
wash

## Examples of Effective Phrases

...sunlight glistened from the wave's crest...

...glistening on the horizon...

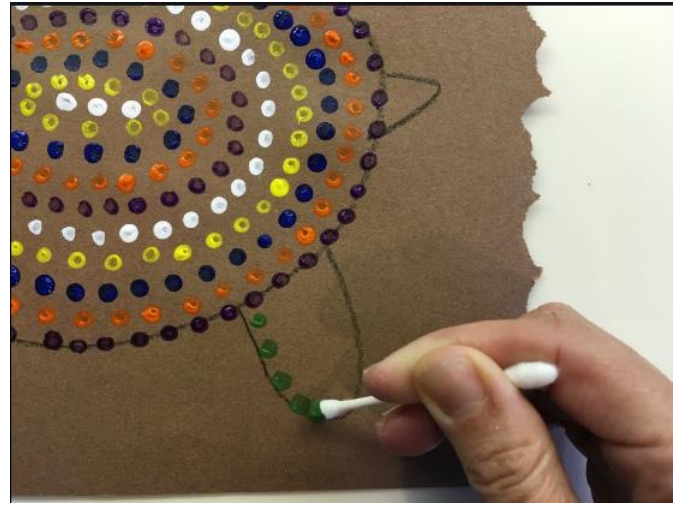
Stormy, tumultuous waters raged...

...minuscule grains of golden sand...

Tropical waters stretched as far as the eye  
could see...

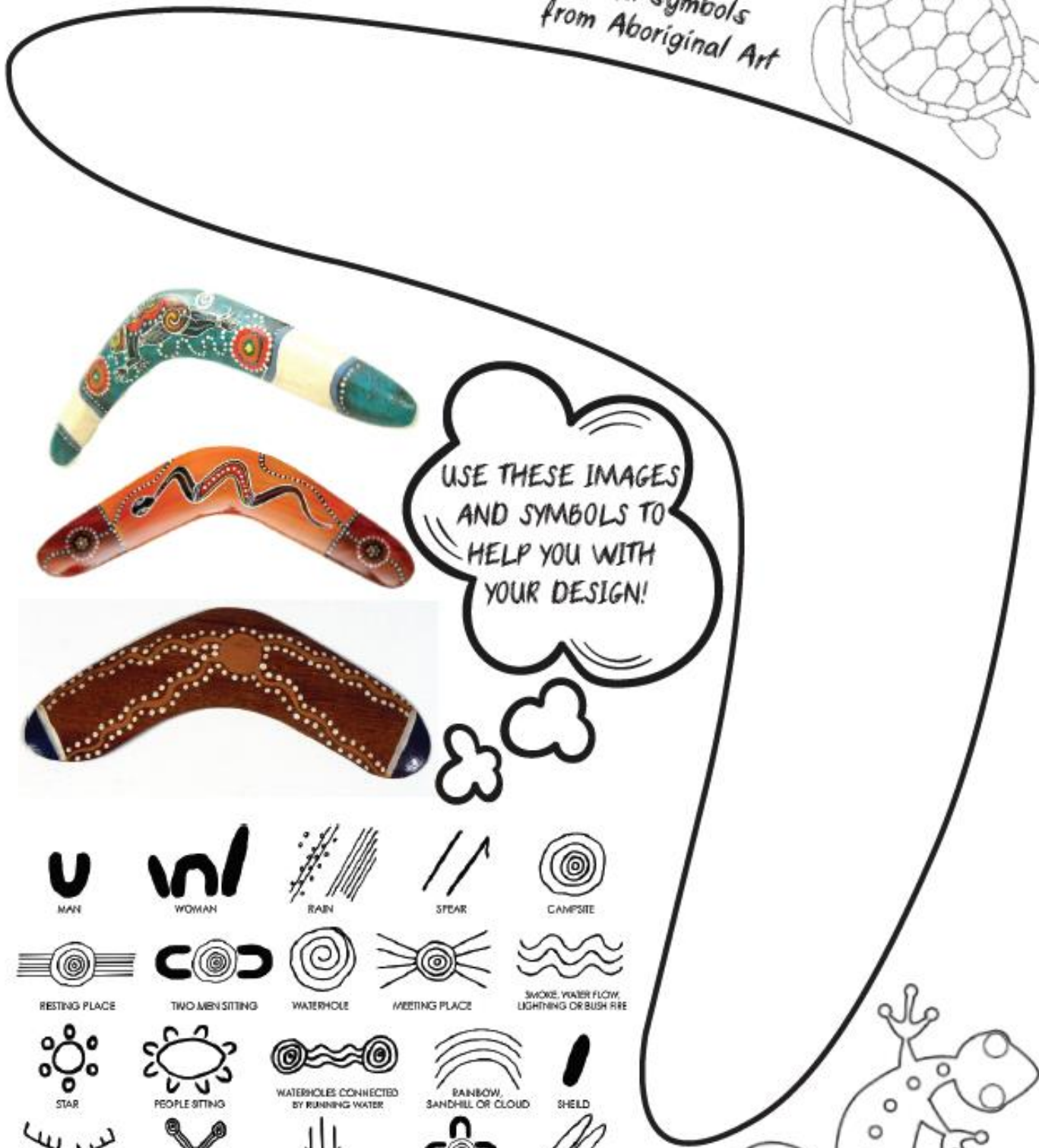
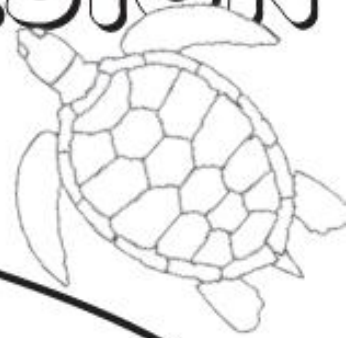
...boats floating atop the glassy water...

















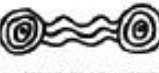


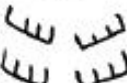




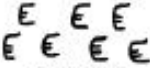




# BOOMERANG DESIGN

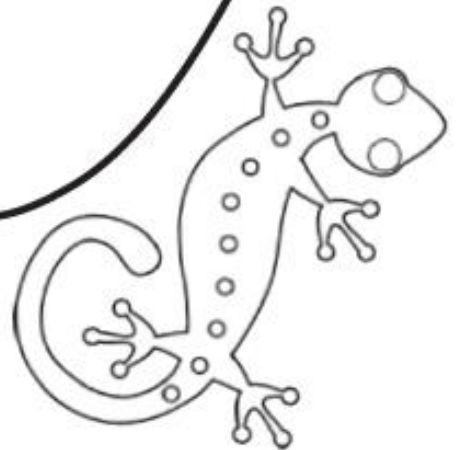
Design your own boomerang using colours and symbols from Aboriginal Art



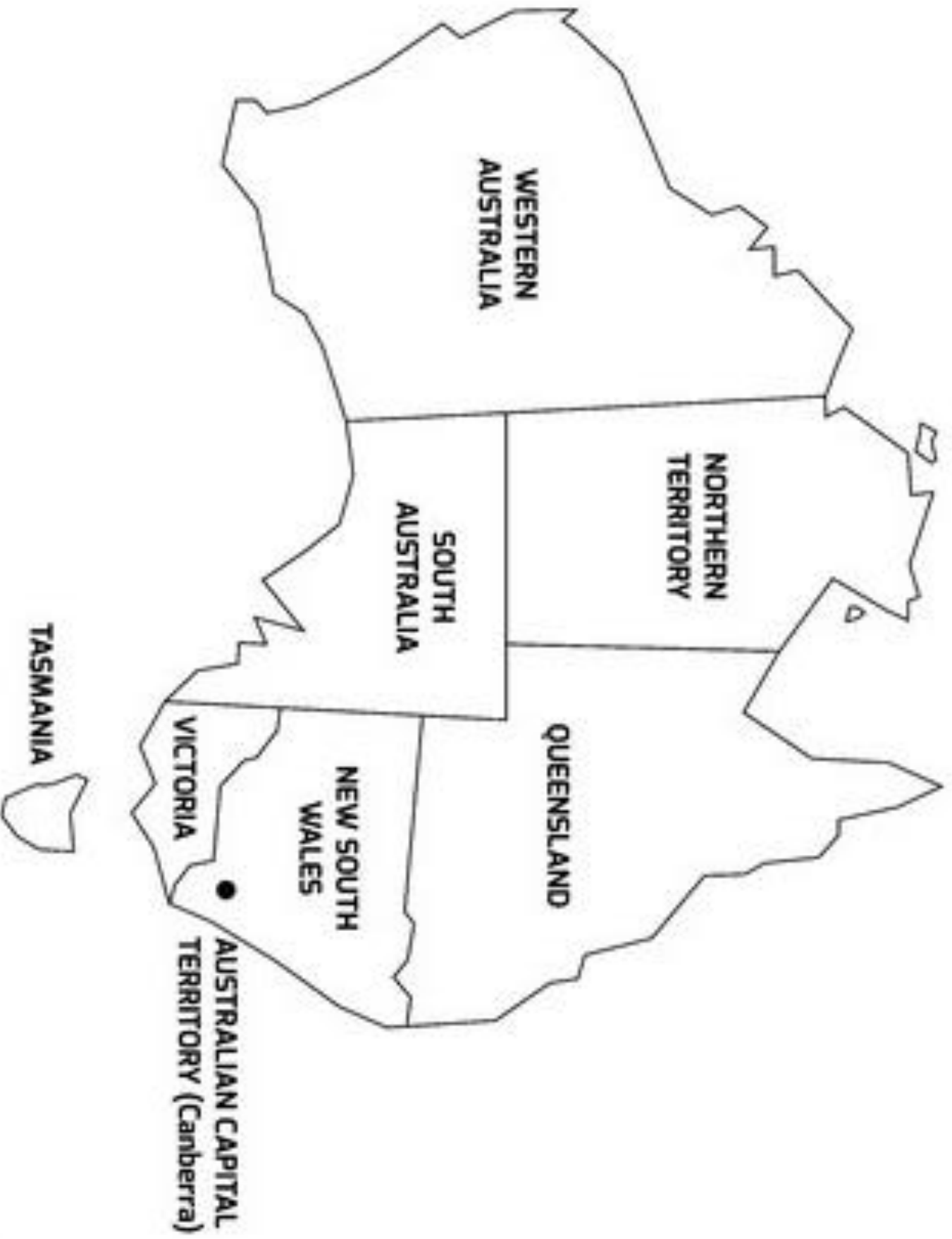
USE THESE IMAGES AND SYMBOLS TO HELP YOU WITH YOUR DESIGN!



- |  |  |  |   |  |
|--|--|--|---|--|
| <br>MAN                       | <br>WOMAN           | <br>RAIN                                  | <br>SPEAR                      | <br>CAMPSITE                                  |
| <br>RESTING PLACE             | <br>TWO MEN SITTING | <br>WATERHOLE                             | <br>MEETING PLACE              | <br>SMOKE, WATER FLOW, LIGHTNING OR BUSH FIRE |
| <br>STAR                      | <br>PEOPLE SITTING  | <br>WATERHOLES CONNECTED BY RUNNING WATER | <br>RAINBOW, SANDHILL OR CLOUD | <br>SHIELD                                    |
| <br>POSSUM                    | <br>HONEY ANT SIE   | <br>MOVING KANGAROO TRACKS                | <br>FOUR WOMEN SITTING         | <br>DIGGING OR CLAPPING STICKS                |
| <br>FOOTPRINTS, ANIMAL TRACKS | <br>WITCHETY GRUB   | <br>BOOMBRANG                             | <br>YAM PLANT                  | <br>ANTS                                      |

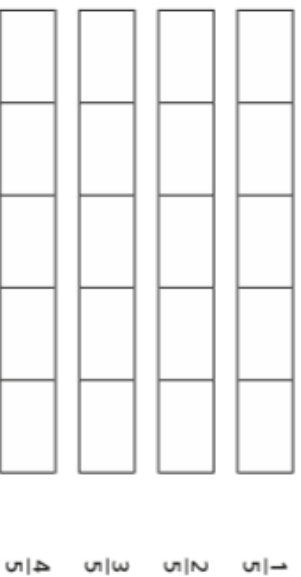






# Order fractions

1 a) Shade the bar models to represent the fractions.



b) What do you notice?

c) Complete the sentence.

numerator  denominator  greater  smaller

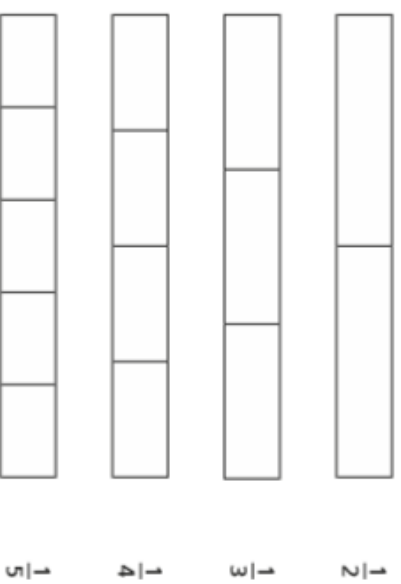
When fractions have the same \_\_\_\_\_, the \_\_\_\_\_ the \_\_\_\_\_ the fraction.

2 Write the fractions in order, starting with the smallest.

<input type="text"/>	$\frac{1}{9}$	<input type="text"/>	$\frac{8}{9}$	<input type="text"/>	$\frac{4}{9}$	<input type="text"/>	$\frac{2}{9}$	<input type="text"/>	$\frac{7}{9}$	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

smallest  greatest

3 a) Shade the bar models to represent the fractions.



b) What do you notice?

c) Complete the sentence.

numerator  denominator  greater  smaller

When fractions have the same \_\_\_\_\_, the \_\_\_\_\_ the \_\_\_\_\_ the fraction.

4 Write the fractions in order, starting with the greatest.

<input type="text"/>	$\frac{1}{9}$	<input type="text"/>	$\frac{1}{3}$	<input type="text"/>	$\frac{1}{7}$	<input type="text"/>	$\frac{1}{2}$	<input type="text"/>	$\frac{1}{11}$	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

greatest  smallest



- 5 Tommy and Dora are ordering fractions.

$$\frac{1}{5}$$

$$\frac{4}{15}$$

$$\frac{2}{3}$$

$$\frac{7}{15}$$



Tommy

I cannot order these fractions because the numerators and denominators are different.

I think I can use equivalent fractions to help me.



Dora

Who do you agree with? \_\_\_\_\_  
Talk about it with a partner.

- 6 a) Complete the equivalent fractions.

$$\frac{3}{5} = \frac{6}{\square}$$

$$\frac{2}{9} = \frac{6}{\square}$$

$$\frac{1}{7} = \frac{6}{\square}$$

- b) Write the fractions in order, starting with the greatest.

$$\frac{6}{9}$$

$$\frac{3}{5}$$

$$\frac{1}{7}$$

$$\frac{2}{9}$$





greatest

smallest

- 7 Dexter and Alex are ordering fractions from smallest to greatest.

$$\frac{1}{7}$$

$$\frac{2}{21}$$

$$\frac{4}{35}$$

$$\frac{2}{7}$$



Dexter

I am going to make the numerators the same.

Use Dexter's method to put the fractions in order.

- b)

I am going to make the denominators the same.



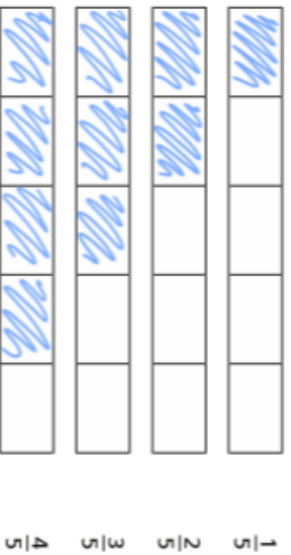
Alex

Use Alex's method to put the fractions in order.

- c) Which method do you prefer? Talk about it with a partner.

## Order fractions

- 1 a) Shade the bar models to represent the fractions.



- b) What do you notice?

- c) Complete the sentence.

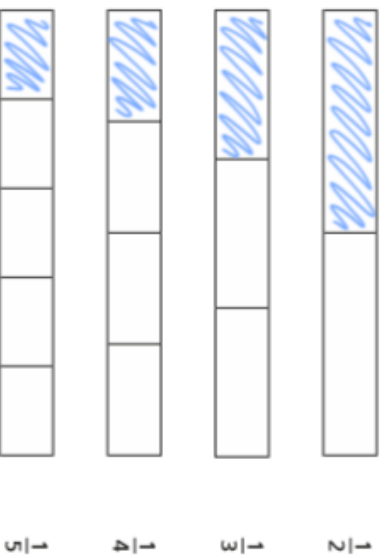
numerator      denominator      greater      smaller

When fractions have the same denominator, the greater the numerator the greater the fraction.

- 2 Write the fractions in order, starting with the smallest.



- 3 a) Shade the bar models to represent the fractions.



- b) What do you notice?

- c) Complete the sentence.

numerator      denominator      greater      smaller

When fractions have the same numerator, the smaller the denominator the greater the fraction.

- 4 Write the fractions in order, starting with the greatest.



- 5 Tommy and Dora are ordering fractions.

$$\frac{1}{5} \quad \frac{4}{15} \quad \frac{2}{3} \quad \frac{7}{15}$$



I cannot order these fractions because the numerators and denominators are different.

Tommy

I think I can use equivalent fractions to help me.



Dora

Who do you agree with? Dora

Talk about it with a partner.

- 6 a) Complete the equivalent fractions.

$$\frac{3}{5} = \frac{6}{10}$$

$$\frac{2}{9} = \frac{6}{27}$$

$$\frac{1}{7} = \frac{6}{42}$$

- b) Write the fractions in order, starting with the greatest.

$\frac{6}{9}$	$\frac{3}{5}$	$\frac{1}{7}$	$\frac{2}{9}$
$\frac{6}{9}$	$\frac{3}{5}$	$\frac{2}{9}$	$\frac{1}{7}$

greatest

smallest

- 7 Dexter and Alex are ordering fractions from smallest to greatest.

$$\frac{1}{7} \quad \frac{2}{21} \quad \frac{4}{35} \quad \frac{2}{7}$$



I am going to make the numerators the same.

Dexter

Use Dexter's method to put the fractions in order.

$$\frac{1}{7} = \frac{4}{28} \quad \frac{2}{21} = \frac{4}{42} \quad \frac{4}{35} = \frac{4}{105}$$

$$\frac{2}{21}, \frac{4}{35}, \frac{1}{7}, \frac{2}{7}$$

- b)

I am going to make the denominators the same.



Alex

Use Alex's method to put the fractions in order.

$$\frac{1}{7} = \frac{15}{105} \quad \frac{2}{21} = \frac{10}{105} \quad \frac{4}{35} = \frac{12}{105} \quad \frac{2}{7} = \frac{30}{105}$$

$$\frac{2}{21}, \frac{4}{35}, \frac{1}{7}, \frac{2}{7}$$


- c) Which method do you prefer? Talk about it with a partner.

## Add fractions


1 Complete the additions.

Use the bar models to help you.

a)   $\frac{1}{3} + \frac{1}{3} = \square$

b)   $\frac{1}{5} + \frac{1}{5} = \square$

c)   $\frac{1}{5} + \frac{2}{5} = \square$

d)   $\frac{1}{5} + \frac{3}{5} = \square$

2 Shade the circles and complete the additions.



$\frac{1}{8} + \frac{3}{8} = \square$



$\frac{5}{8} + \frac{1}{8} = \square$



c)



$\frac{3}{8} + \frac{3}{8} = \square$

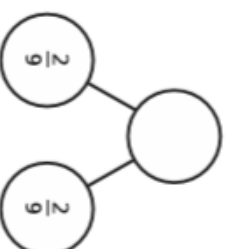
d)



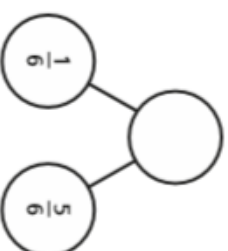
$\frac{5}{8} + \frac{3}{8} = \square$

3 Complete the part-whole models.

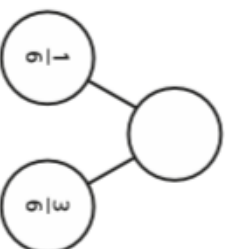
a)



c)



b)



Which part-whole model is the odd one out? \_\_\_\_\_

Talk about your choice with a partner. Did they choose the same odd one out?



- 4 Alex and Huan are eating a cake.

Alex eats  $\frac{4}{7}$  of the cake.

Huan eats  $\frac{2}{7}$  of the cake.

What fraction of the cake have they eaten altogether?

They have eaten  of the cake altogether.

- 5 Teddy is adding fractions.



$\frac{1}{4} + \frac{2}{4} = \frac{3}{8}$

a) Draw a bar model to show that Teddy is wrong.

b) Complete the addition  $\frac{1}{4} + \frac{2}{4} =$

- 6 Annie has baked 12 muffins.

She puts them into 2 boxes.

What fraction of the muffins could she put in each box?

Complete the table to show different possibilities.

One has been done for you.



Box 1	Box 2
$\frac{1}{12}$	$\frac{11}{12}$

Are there any other possibilities? Talk about it with a partner.

- 7 Complete the additions.

a)  $\frac{3}{8} + \frac{4}{8} =$

d)  $\frac{3}{103} + \frac{4}{103} =$

b)  $\frac{3}{9} + \frac{4}{9} =$

e)  $\frac{5}{31} + \frac{9}{31} =$

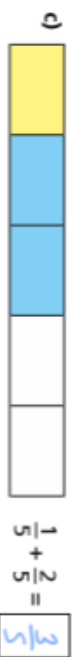
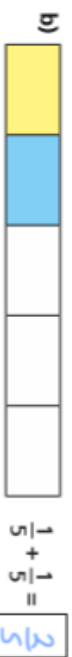
c)  $\frac{3}{29} + \frac{4}{29} =$

f)  $\frac{17}{111} + \frac{33}{111} =$

## Add fractions

1 Complete the additions.

Use the bar models to help you.



2 Shade the circles and complete the additions.



$$\frac{1}{8} + \frac{3}{8} = \frac{4}{8}$$



$$\frac{5}{8} + \frac{1}{8} = \frac{6}{8}$$



c)



$$\frac{3}{8} + \frac{3}{8} = \frac{6}{8}$$

d)



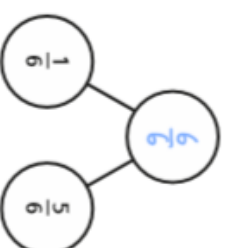
$$\frac{5}{8} + \frac{3}{8} = \frac{8}{8}$$

3 Complete the part-whole models.

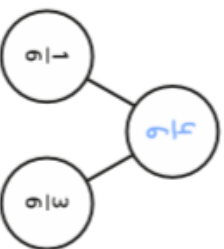
a)



c)



b)



Which part-whole model is the odd one out? Model a  
Talk about your choice with a partner. Did they choose the same odd one out?



- 4 Alex and Huan are eating a cake.

Alex eats  $\frac{4}{7}$  of the cake.

Huan eats  $\frac{2}{7}$  of the cake.

What fraction of the cake have they eaten altogether?

They have eaten  $\frac{6}{7}$  of the cake altogether.

- 5 Teddy is adding fractions.



$\frac{1}{4} + \frac{2}{4} = \frac{3}{8}$

a) Draw a bar model to show that Teddy is wrong.

$\frac{1}{4} + \frac{2}{4} = \frac{3}{4}$  not  $\frac{3}{8}$

b) Complete the addition  $\frac{1}{4} + \frac{2}{4} = \frac{3}{4}$

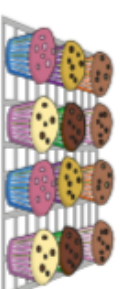
- 6 Annie has baked 12 muffins.

She puts them into 2 boxes.

What fraction of the muffins could she put in each box?

Complete the table to show four possibilities.

One has been done for you.



Box 1	Box 2
$\frac{1}{12}$	$\frac{11}{12}$
$\frac{2}{12}$	$\frac{10}{12}$
$\frac{3}{12}$	$\frac{9}{12}$
$\frac{4}{12}$	$\frac{8}{12}$
$\frac{5}{12}$	$\frac{7}{12}$
$\frac{6}{12}$	$\frac{6}{12}$

Are there any other possibilities? Talk about it with a partner.

- 7 Complete the additions.

a)  $\frac{3}{8} + \frac{4}{8} = \frac{7}{8}$

d)  $\frac{3}{103} + \frac{4}{103} = \frac{7}{105}$

b)  $\frac{3}{9} + \frac{4}{9} = \frac{7}{9}$

e)  $\frac{5}{31} + \frac{9}{31} = \frac{14}{31}$

c)  $\frac{3}{29} + \frac{4}{29} = \frac{7}{29}$

f)  $\frac{17}{111} + \frac{33}{111} = \frac{50}{111}$


## Subtract fractions





- 1 Complete the subtractions.

Use the bar models to help you.

a)   $\frac{2}{3} - \frac{1}{3} = \square$

b)   $\frac{2}{5} - \frac{1}{5} = \square$

c)   $\frac{3}{5} - \frac{1}{5} = \square$

d)   $\frac{4}{5} - \frac{1}{5} = \square$

- 2 Jack has  $\frac{7}{8}$  of a chocolate bar.

He eats  $\frac{4}{8}$  of the chocolate bar.

What fraction of the chocolate bar does he have left?

Jack has  of the chocolate bar left.



- 3 Complete the subtractions.

Simplify your answers where possible.

a)  $\frac{7}{10} - \frac{1}{10} = \square = \square$

e)  $\frac{8}{12} - \frac{4}{12} = \square = \square$

b)  $\frac{7}{10} - \frac{2}{10} = \square = \square$

f)  $\frac{9}{12} - \frac{5}{12} = \square = \square$

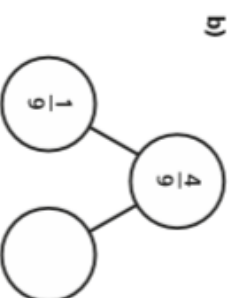
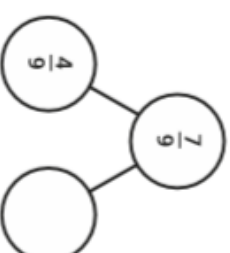
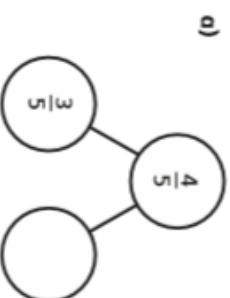
c)  $\frac{7}{10} - \frac{3}{10} = \square = \square$

g)  $\frac{9}{59} - \frac{5}{59} = \square$

d)  $\frac{7}{12} - \frac{3}{12} = \square = \square$

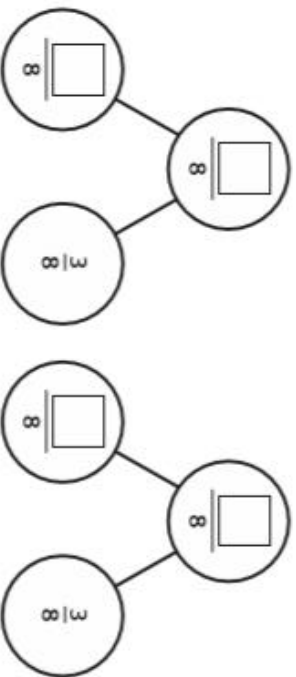
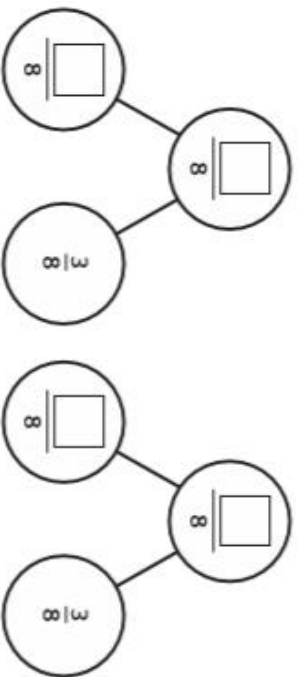
h)  $\frac{13}{127} - \frac{9}{127} = \square$

- 4 Complete the part-whole models.





- 5 Complete the part-whole model in four different ways.



- 6 Kim has read  $\frac{6}{7}$  of her book.  
Tom has read  $\frac{2}{7}$  of his book.
- a) Shade the bar models to represent this information.



- b) How much more has Kim read than Tom?  
Kim has read  more of her book than Tom.



- 7 Write the missing numerators.

a)  $\frac{8}{9} - \frac{\square}{9} = \frac{7}{9}$

e)  $\frac{7}{10} - \frac{5}{10} = \frac{1}{10} + \frac{\square}{10}$

b)  $\frac{5}{11} - \frac{\square}{11} = \frac{4}{11}$

f)  $\frac{\square}{4} - \frac{1}{4} = \frac{1}{4} + \frac{1}{4}$

c)  $\frac{8}{9} - \frac{\square}{9} = \frac{3}{9} + \frac{4}{9}$

g)  $\frac{\square}{5} - \frac{2}{5} = \frac{1}{5} + \frac{2}{5}$

d)  $\frac{7}{9} - \frac{5}{9} = \frac{\square}{9} - \frac{4}{9}$

h)  $\frac{4}{5} + \frac{1}{5} = \frac{3}{7} - \frac{2}{7} + \frac{\square}{7}$

- 8 Complete the table to show three possible values of the square and triangle.

$$\frac{\triangle}{92} - \frac{\square}{92} = \frac{13}{92}$$



How many other answers can you find?




## Subtract fractions

1 Complete the subtractions.

Use the bar models to help you.

a)   $\frac{2}{3} - \frac{1}{3} = \boxed{\frac{1}{3}}$

b)   $\frac{2}{5} - \frac{1}{5} = \boxed{\frac{1}{5}}$

c)   $\frac{3}{5} - \frac{1}{5} = \boxed{\frac{2}{5}}$

d)   $\frac{4}{5} - \frac{1}{5} = \boxed{\frac{3}{5}}$

2 Jack has  $\frac{7}{8}$  of a chocolate bar.

He eats  $\frac{4}{8}$  of the chocolate bar.

What fraction of the chocolate bar does he have left?

Jack has  $\boxed{\frac{3}{8}}$  of the chocolate bar left.

3 Complete the subtractions.

Simplify your answers where possible.

a)  $\frac{7}{10} - \frac{1}{10} = \boxed{\frac{6}{10}} = \boxed{\frac{3}{5}}$

e)  $\frac{8}{12} - \frac{4}{12} = \boxed{\frac{4}{12}} = \boxed{\frac{1}{3}}$

b)  $\frac{7}{10} - \frac{2}{10} = \boxed{\frac{5}{10}} = \boxed{\frac{1}{2}}$

f)  $\frac{9}{12} - \frac{5}{12} = \boxed{\frac{4}{12}} = \boxed{\frac{1}{3}}$

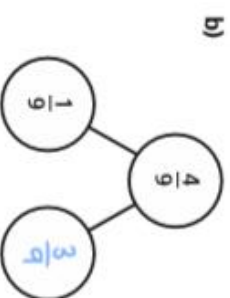
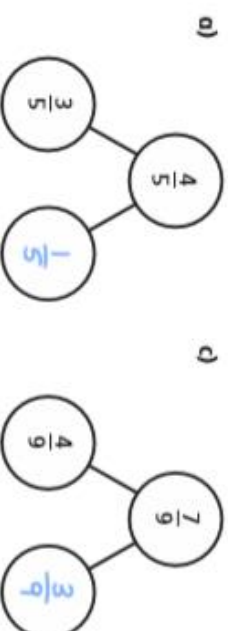
c)  $\frac{7}{10} - \frac{3}{10} = \boxed{\frac{4}{10}} = \boxed{\frac{2}{5}}$

g)  $\frac{9}{59} - \frac{5}{59} = \boxed{\frac{4}{59}}$

d)  $\frac{7}{12} - \frac{3}{12} = \boxed{\frac{4}{12}} = \boxed{\frac{1}{3}}$

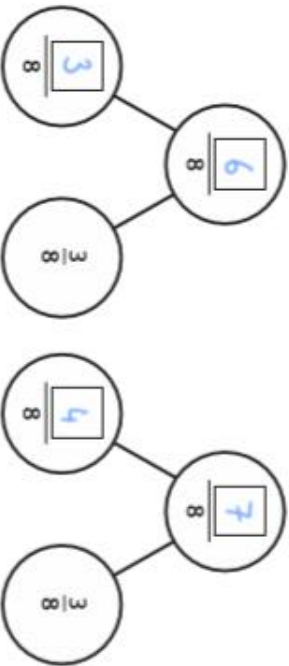
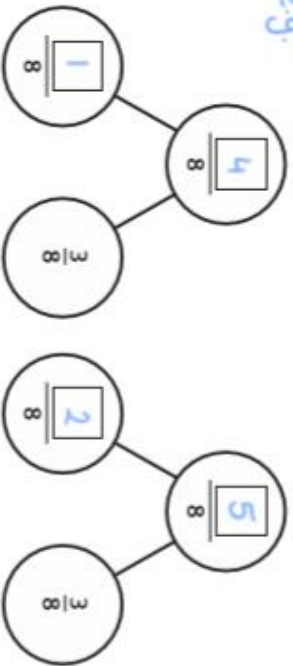
h)  $\frac{13}{127} - \frac{9}{127} = \boxed{\frac{4}{127}}$

4 Complete the part-whole models.

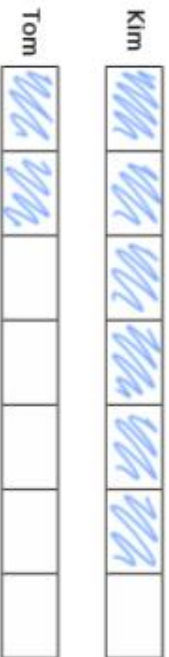


- 5 Complete the part-whole model in four different ways.

e.g.



- 6 Kim has read  $\frac{6}{7}$  of her book.  
Tom has read  $\frac{2}{7}$  of his book.
- a) Shade the bar models to represent this information.



- b) How much more has Kim read than Tom?  
Kim has read  $\frac{4}{7}$  more of her book than Tom.

- 7 Write the missing numerators.

a)  $\frac{8}{9} - \frac{1}{9} = \frac{7}{9}$

e)  $\frac{7}{10} - \frac{5}{10} = \frac{1}{10} + \frac{1}{10}$

b)  $\frac{5}{11} - \frac{1}{11} = \frac{4}{11}$

f)  $\frac{3}{4} - \frac{1}{4} = \frac{1}{4} + \frac{1}{4}$

c)  $\frac{8}{9} - \frac{1}{9} = \frac{3}{9} + \frac{4}{9}$

g)  $\frac{5}{5} - \frac{2}{5} = \frac{1}{5} + \frac{2}{5}$

d)  $\frac{7}{9} - \frac{5}{9} = \frac{6}{9} - \frac{4}{9}$

h)  $\frac{4}{5} + \frac{1}{5} = \frac{3}{7} - \frac{2}{7} + \frac{6}{7}$

- 8 Complete the table to show three possible values of the square and triangle.

e.g.

14	1	
20	7	
30	17	

How many other answers can you find?

# Lesson 4

## Three Cards

### The Problem

Here are some fraction cards.



- Each fraction has 7 as the denominator.
- A is twice as big as B.
- The sum of the cards is 1

What could the cards be?

### My Solution

## The Symbol

### The Problem

The symbol  means

Double the first number and then subtract the second number

Calculate

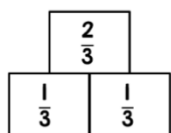
$$\frac{2}{5} \star \frac{3}{5}$$

### My Solution

## Pyramids I

### The Problem

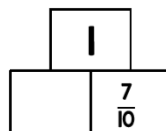
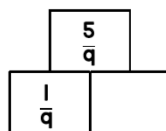
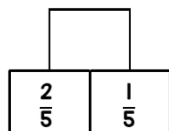
Here is a fraction pyramid.



The number above is calculated by adding the two fractions below.

Work out the missing numbers in the pyramids opposite.

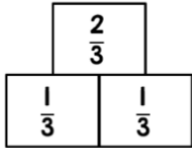
### My Solution



## Pyramids 2

### The Problem

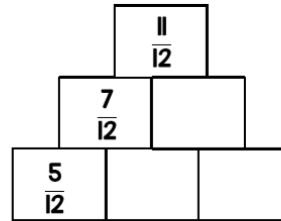
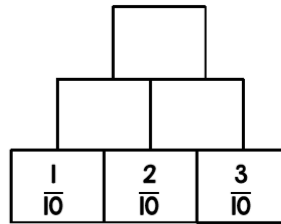
Here is a fraction pyramid.



The number above is calculated by adding the two fractions below.

Work out the missing numbers in the pyramids opposite.

### My Solution



## Total Length

### The Problem

This line is  $\frac{3}{20}$  of a metre long.



This line is  $\frac{4}{20}$  metre longer than the line above.



What is the total length of the two lines?

Can you write your answer in cm too?

### My Solution

## Lesson 4 Answers

### Three Cards

#### The Problem

Here are some fraction cards.



- Each fraction has 7 as the denominator.
- A is twice as big as B.
- The sum of the cards is 1

What could the cards be?

#### My Solution

$$A + B + C = 1$$

$$\frac{A}{7} + \frac{B}{7} + \frac{C}{7} = \frac{7}{7}$$

e.g.  $\frac{4}{7} + \frac{2}{7} + \frac{1}{7} = \frac{7}{7}$   
so the cards could be ...  
 $A = \frac{4}{7}$   $B = \frac{2}{7}$   $C = \frac{1}{7}$

### The Symbol

#### The Problem

The symbol  means

Double the first number and then subtract the second number

Calculate

$$\frac{2}{5} \star \frac{3}{5}$$

#### My Solution

Double  $\frac{2}{5}$  then subtract  $\frac{3}{5}$

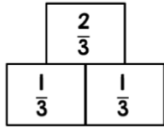
$$\frac{4}{5} + \frac{2}{5} - \frac{3}{5} = \frac{1}{5}$$

$$\frac{4}{5} \star \frac{3}{5} = \frac{1}{5}$$

# Pyramids 1

## The Problem

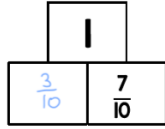
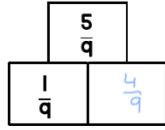
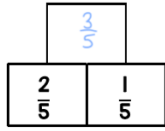
Here is a fraction pyramid.



The number above is calculated by adding the two fractions below.

Work out the missing numbers in the pyramids opposite.

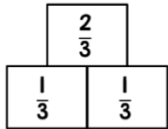
## My Solution



# Pyramids 2

## The Problem

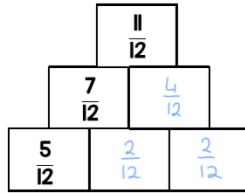
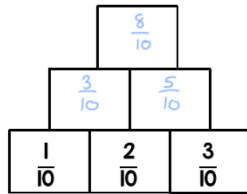
Here is a fraction pyramid.



The number above is calculated by adding the two fractions below.

Work out the missing numbers in the pyramids opposite.

## My Solution



# Total Length

## The Problem

This line is  $\frac{3}{20}$  of a metre long.



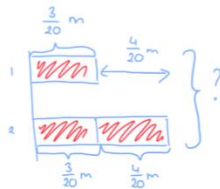
This line is  $\frac{4}{20}$  metre longer than the line above.



What is the total length of the two lines?

Can you write your answer in cm too?

## My Solution



$$\frac{3}{20} \text{ m} + \frac{3}{20} \text{ m} + \frac{4}{20} \text{ m} = \frac{10}{20} \text{ m}$$

The total length of the two lines is  $\frac{10}{20}$  m. This is the same as 50 cm.