



Maths

Multiplication and Division

Party Time!



Aim

- I can solve word problems involving all four operations.

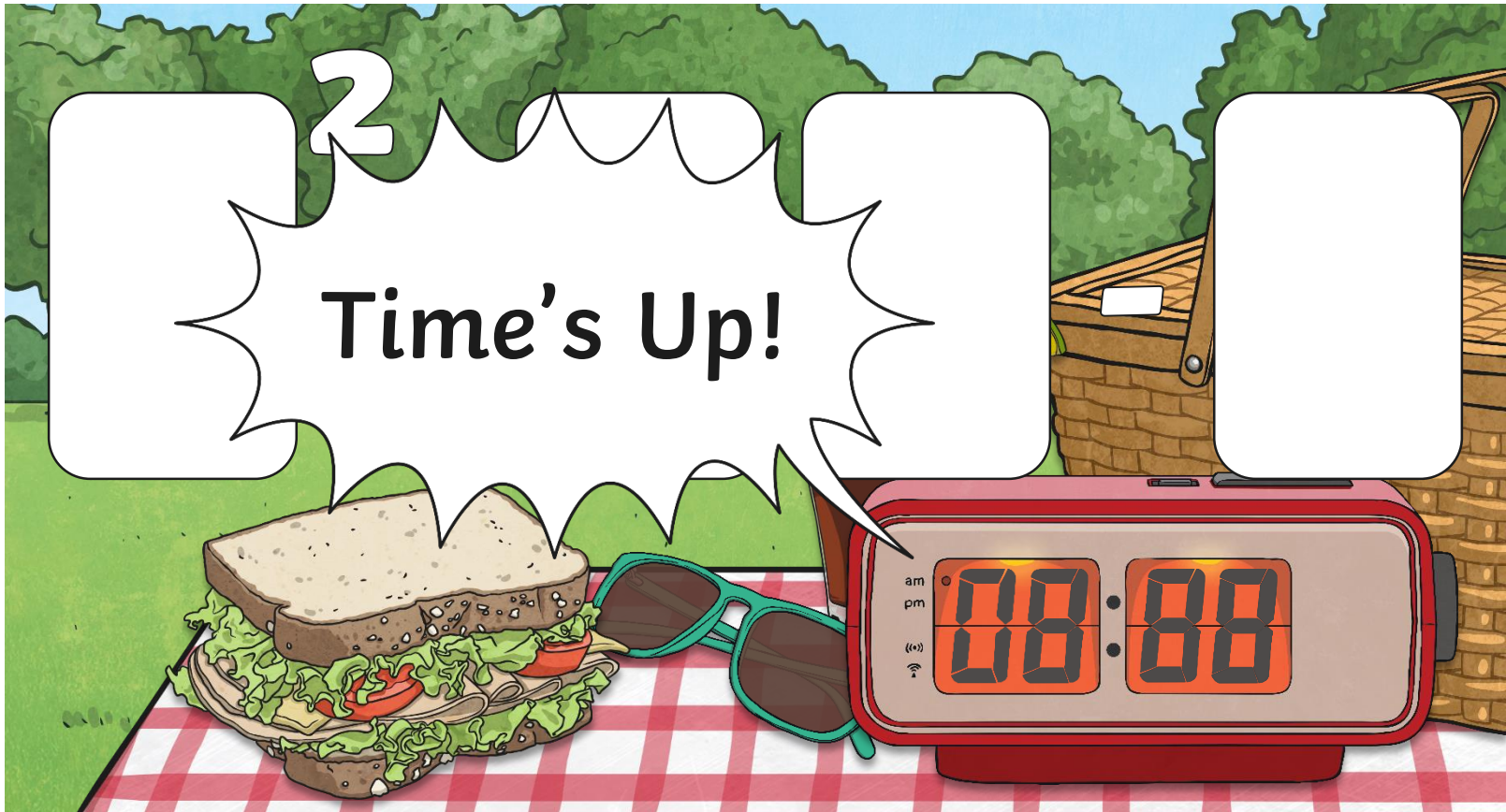
Success Criteria

- I can identify the important information in a word problem.
- I can find the calculation I need to do to answer the question.
- I can solve the problem and check my answer.

Possibilities



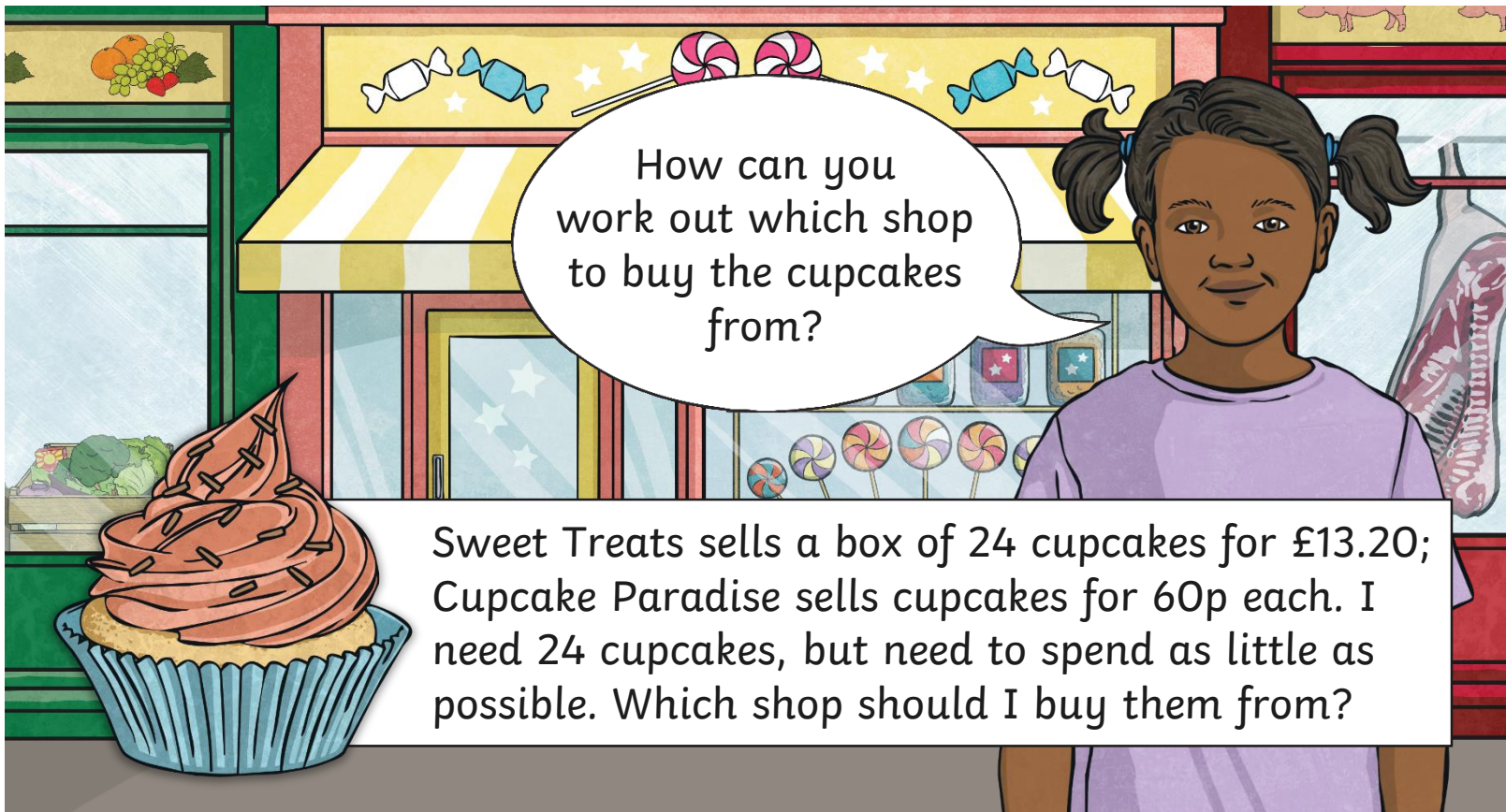
Using one digit per box, how many different calculations can you think of to make this equation correct?
Click the clock for a three-minute countdown.



Cupcake Conundrum



I visit two shops to find the best price for cupcakes for my party. The lady in Sweet Treats is really nice and even lets me taste one!



Sweet Treats sells a box of 24 cupcakes for £13.20; Cupcake Paradise sells cupcakes for 60p each. I need 24 cupcakes, but need to spend as little as possible. Which shop should I buy them from?

Cupcake Conundrum



Which part of the question contains the important information?


We need to work out the price for each cupcake so that we can see which shop sells the cheapest cupcakes.

Sweet Treats sells a box of **24** cupcakes for £13.20; Cupcake Paradise sells cupcakes for 60p each. I need 24 cupcakes, but need to **spend as little as possible**. **Which shop** should I buy them from?

Cupcake Conundrum



Which is cheaper? 24 for £13.20 or 60p each?



Work out
the answer using long
multiplication or division.
Which shop sells the
cheapest cupcakes?

Cupcake Conundrum



Which is cheaper? 24 for £13.20 or 60p each?



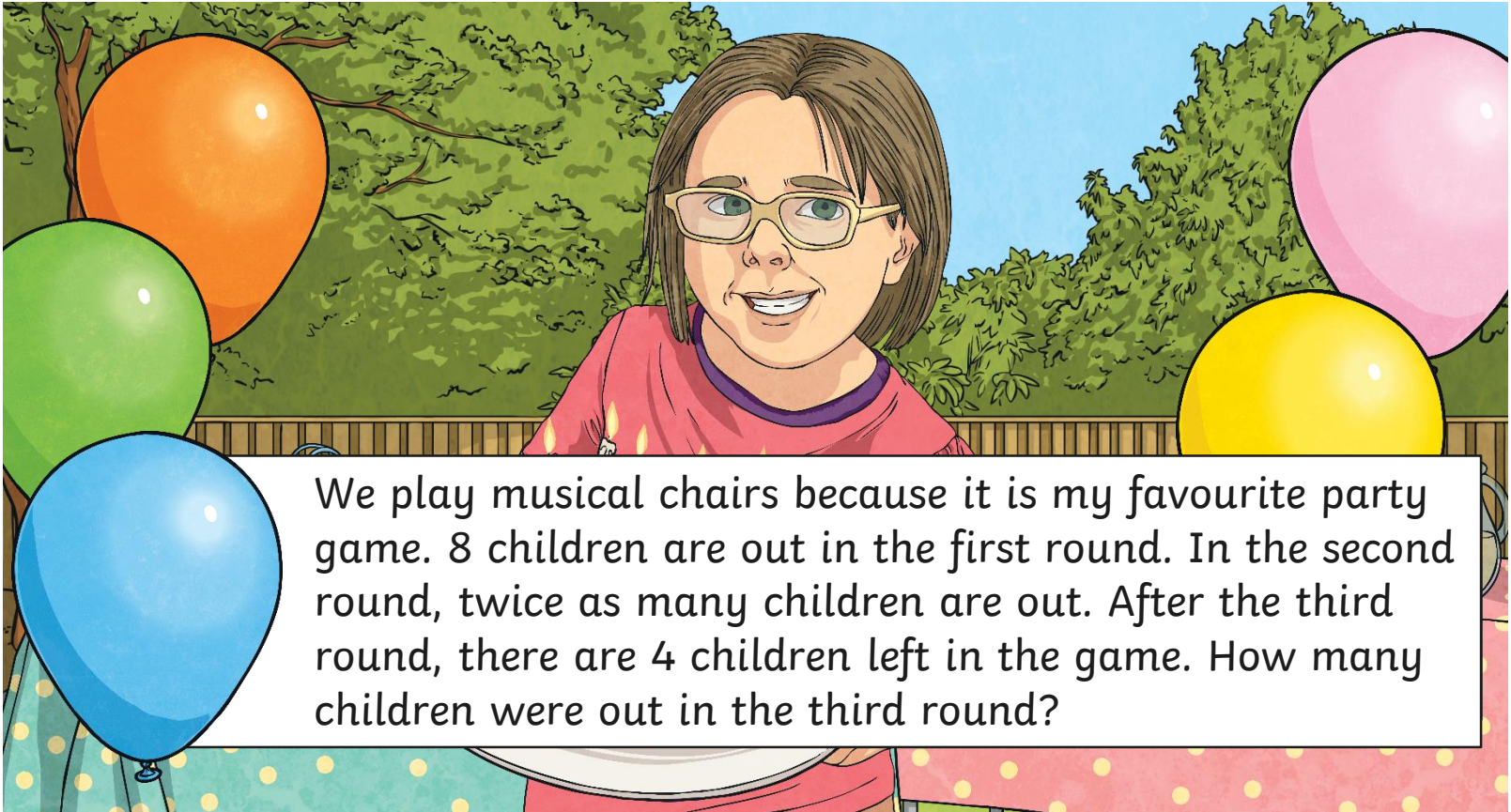
24 for £13.20 is cheaper than 60 out at 55p per cake. 24 cakes at cost £14.40 so this is more expensive.

Multiplication

				5	5
			6	0	
2	4	1	3	2	0
		x	2	4	
			1	2	0
			2	4	0
				1	2
				0	0
		1	2	0	0
					0
		1	4	4	0
					0

Party Games

Work out the answers to these questions, remembering to look for the important information to help you choose your calculation.



We play musical chairs because it is my favourite party game. 8 children are out in the first round. In the second round, twice as many children are out. After the third round, there are 4 children left in the game. How many children were out in the third round?

Party Games

Question 1.

~~It is my tenth birthday party. I love party games and need to buy a first, second and third prize for each game.~~ How many games can I play if I have **50 prizes**? Will there be **any prizes left over**?

50 (prizes) \div 3 (first, second and third per game) = ?
remainder ?

Next, highlight the important
How many 3s are there in 50?

$$16 \times 3 = 48$$

calculations needed to solve the

So, there will be enough prizes for 16 games with 2 prizes left over.

Party Games



Question 2.

I can check this by adding up the boys and girls to check that we have 36 children altogether.

Next, highlight the important

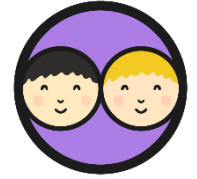
20 (boys) + 7 (girls) + 9 (girls)
= 36 children in total

$11 + 9 = 20$ boys in total

calculations needed to solve the problem.

~~I split the party guests into two equal teams.~~
There are 36 children in total. In one team, there are 7 girls and in the other team, there are 9 girls. How many boys are there altogether at the party?

Party Games



Question 3.

~~We play musical chairs because it is my favourite party game.~~ 8 children are out in the first round. In the second round, twice as many children are out. After the third round, there are 4 children left in the game. How many children were out in the third round?

$$\begin{aligned} \text{Check it: } & 8 + 16 + 8 + 4 = 36 \\ & - 8 = 28 \end{aligned}$$

Second round: 8×2 out

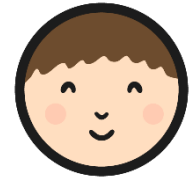
$$28 - (2 \times 8) = 28 - 16 = 12 \text{ (left after second round)}$$

$$\begin{aligned} 12 - 4 \text{ (left in the fourth round)} \\ = 8 \end{aligned}$$

problem.

So, 8 children must have been out in the third round.

Party Time!



Use your marvellous maths skills to complete these activities:

2) Entertainment
Which entertainer provides the best value for money?
The magician is £120 per hour.
The Disco is £92 plus £26 for every 30 minutes required.
The Clown is £67 for the first 30 minutes, then £43 for every additional 30 minutes.

I can solve word problems involving all four operations.

Can you help me to plan my party?

1) Party Games
My friends are really excited about the party but I'm struggling to decide which games to play. I asked 48 of my friends to vote on their favourite party game. A quarter of them said that Pass the Parcel was their favourite game, 12 of them said Musical Chairs and the rest preferred Islands. Which game was the most popular?

First, circle or underline the important information.
Next, write the calculations you will need to do in order to answer the question:

a) A quarter of 48 = $48 \div 4 =$ _____
b) Add 12 to the answer from a) and subtract this from 48 to find out how many preferred Islands.
 $12 +$ _____ = _____
 $48 -$ _____ = _____
c) _____ voted for Pass the Parcel.
_____ voted for Musical Chairs.
_____ voted for Islands.
Now answer the question: which game was the most popular? _____

Challenge Task
Which entertainer would be the best value for money?
Show your working out below:

2) Entertainment
Which entertainer provides the best value for money?
The magician is £98 per hour.
The Disco is £85 plus £24 for every 30 minutes required.
The Clown is £62 for the first 30 minutes, then £32 for every additional 30 minutes.

I can solve word problems involving all four operations.

Can you help me to plan my party?

1) Party Games
My friends are really excited about the party but I'm struggling to decide which games to play. I asked 80 of my friends to vote on their favourite party game. A quarter of them said Musical Chairs, 16 of them said Musical Islands and the rest preferred Pass the Parcel. Which game was the most popular?

First, circle or underline the important information.
Next, write the calculations you will need to do in order to answer the question:

a) For 2 hours, the magician would cost $2 \times \text{£} =$ _____
b) For 2 hours, the disco would cost $\text{£}85 + (\text{£}25 \times 4) = \text{£}85 +$ _____ = _____
c) For 2 hours, the clown would cost $\text{£}62 + \text{£}35 + \text{£}35 + \text{£}35 =$ _____
d) Now, answer the question: which game was the most popular?
The magician would cost _____
The disco would cost _____
The clown would cost _____
The _____ is the best value for money.

Challenge Task
Which entertainer would be the best value for money?
Show your working out below:

2) Entertainment
Which entertainer provides the best value for money?
The magician is £100 per hour.
The Disco is £85 plus £25 for every 30 minutes required.
The Clown is £65 for the first 30 minutes, then £35 for every additional 30 minutes.

I can solve word problems involving all four operations.

Can you help me to plan my party?

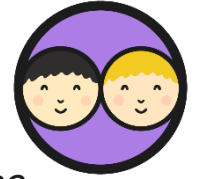
1) Party Games
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a) A quarter of 48 = $48 \div 4 =$ _____
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c) _____ voted for Pass the Parcel.
_____ voted for Musical Chairs.
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Now answer the question: which game was the most popular? _____

Challenge Task
Which entertainer would be the best value for money?
Show your working out below:

Pass the Problem



You have three minutes to write a word problem on your piece of paper (don't write the answer!). Make sure you put your name on it.



Aim



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