Reasoning and Problem Solving
Decimals Consolidation – Year 4

About This Resource

This resource is aimed at Year 4 Secure and has been designed to give children the opportunity to consolidate the skills they have learned in Summer Block 1 Decimals.

The questions are based on a selection of the same 'small steps' that are addressed in the block, but are presented in a different way so children can work through the pack independently and demonstrate their understanding and skills.

Small Steps

Make a Whole
Write a Decimal
Compare Decimals
Order Decimals
Round Decimals
Halves and Quarters

National Curriculum Objectives

Mathematics Year 4 (4F6b) Recognise and write decimal equivalents of any number of tenths or hundredths
Mathematics Year 4 (4F9) Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
Mathematics Year 4 (4F10b) Solve simple measure and money problems involving fractions and decimals to two decimal places

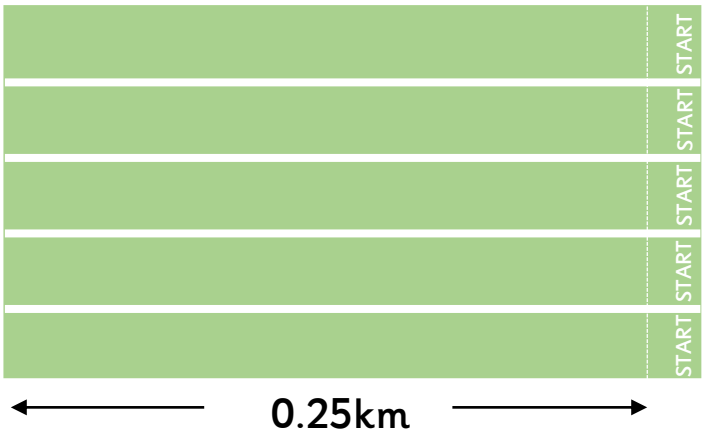
Did you like this resource? Don't forget to review it on our website.

Atherton Athletics Day

Today is the day of the annual Atherton Athletics Day.

There are a number of events, including: jumping, throwing and running races.

1a. The children are running the 1km race. 1 length of the field is 0.25km. How many lengths of the field do the children need to run in order to complete the full 1km race?



1b. They use the same field for the relay race. Samia and Alfie run 2 lengths each and Asha runs 3 lengths. How far do they all run together?

1c. In the long jump each child has 2 attempts to jump a total of 1m. Sally jumps 0.45m in her first jump. How far does she need to jump in her second attempt to make 1m?

2a. Three children have finished the same race but they have all forgotten their times. They can each remember some of the digits in their times.
Match the times with the correct children using the clues.

Alex

My time was higher than 5 minutes.

Hannah

My time had 5 hundredths

Shae

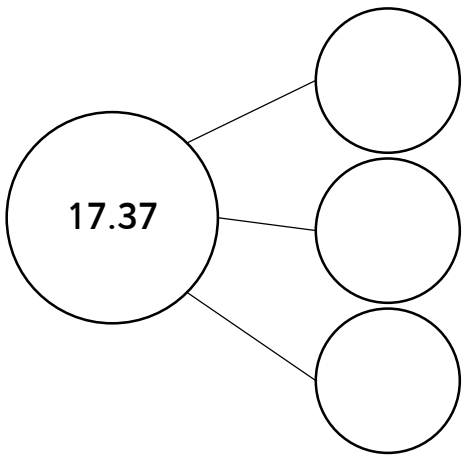
My time had 4 tenths.

03:35

05:47

05:34

2b. Sasha is measuring the results of Albert's javelin throw. He throws the javelin once at a distance of 17.37m. Complete the part whole model to partition his distance.



2c. Samia has also thrown a javelin. She has thrown it 17 whole metres, 2 tenths of a metre and 9 hundredths of a metre.

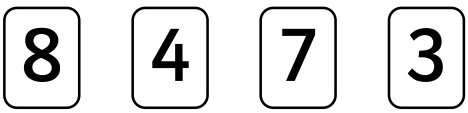
She says that she has thrown it further than Albert. Is she correct?

3a. Each child gets two throws of the discus. They write down both of their results. Insert either >, < or = to compare their throws.

Sulaman	06.45m		06.45m
Saskia	13.98m		13.89m
Alexis	08.09m		09.80m
Charlie	11.50m		11.05m
Danika	12.12m		12.21m

3b. Danika's firsts discus throw went 12.12m. She says that her discus went 1m further than Charlie's first throw, which went 11.50m. Is she correct? Explain.

3c. Annabelle has spilt some water on her results page from throwing the discus. She knows the 4 digits, and she remembers that it had 2 decimal places. What is the highest score that she could get using the 4 digit cards? What is the lowest score that she could get?



Highest score =

Lowest score =

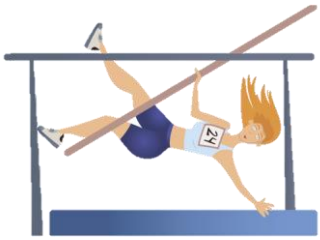
4a. Here is the list of results from the high jump.

Put the results in order from the highest jump to the lowest jump.

Adam	05.22m
Katya	01.87m
Shanice	02.20m
Joel	03.33m
Bertie	03.23m
Klay	02.97m

1st	
2nd	
3rd	
4th	
5th	
6th	

4b. Sienna has forgotten to write her results down. She jumped 2.89m high. She thinks that she has come fourth. Is she correct?



5a. During the tennis ball throwing event, the children have decided to round the results of where the ball lands to the nearest metre. Sam throws the tennis ball and it lands somewhere between 13m and 14m. It rounds to 14m. Circle all the measurements where the ball could have landed.

14.23m 13.59m 13.34m 13.89m 14.57m

5b. Tia throws the tennis ball twice. Her first throw lands at 12.2m and her second lands at 12.6m. What do the numbers round to?

12.2m rounds to = ☐ 12.6m rounds to = ☐

6a. The hurdles relay is 400m. Dani runs 200m, Charlie and Annie run 100m each. What fraction of the race does Dani run?

6b. Charlie and Annie both run $\frac{1}{4}$ of the race each. Charlie says that $\frac{1}{4}$ as a decimal is 1.4. Is he correct? Explain.

6c. $\frac{3}{4}$ of the children don't get a medal.

What fraction of children do receive a medal?

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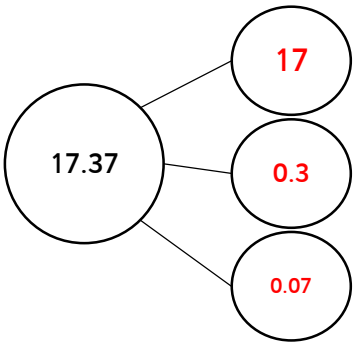
1a. 4 lengths

1b. 1.75km

1c. 55cm or 0.55m

2a. Alex – 05:34 Hannah – 03:35 Shae – 05:47

2b.



2c. No Samia is not correct. She has thrown it 17.29m which is less than Albert's throw of 17.37m.

3a.

Sulaman	06.45m	=	06.45m
Saskia	13.98m	>	13.89m
Alexis	08.09m	<	09.80m
Charlie	11.50m	>	11.05m
Danika	12.12m	<	12.21m

3b. No Danika is not correct. 1 metre more than 11.50m is 12.50m and Danika threw the discus 12.12m which is less than 1 whole metre than 11.50m.

3c. Highest score = 87.43m. Lowest score = 34.78m.

4a.

1st	Adam
2nd	Joel
3rd	Bertie
4th	Klay
5th	Shanice
6th	Katya

4b. No she came fifth after Klay. 2.89m is less than 2.97m.

5a. 13.59m and 13.89m

5b. 12.2m = 12m. 12.6m = 13m.

6a. $\frac{1}{2}$

6b. No $\frac{1}{4}$ = 0.25

6c. $\frac{1}{4}$ of the children received a medal.