

Investigation 5 Ramp champ

Girls and boys, start your engines!

Your task is to make your toy car travel as far as it can after leaving the ramp.

How far can you make your toy car travel? How will you measure this distance?

Who will be the class ramp champ?



Before you start the Investigation you need to know	
NAI Count in onesp32	MG2 How long is a metre?p98
NA5 Read and write two-digit numeralsp40	MG5 How heavy is it?p104
MGI Measuring lengthp96	



- A comprehensive lesson plan, suggestions and resources are available in *iMaths 1 Teacher Book*.
- The BLMs for this Investigation can be downloaded from www.imathsteachers.com.au.



I Exploring ramps.

Talk about ramps. Make your own ramp and roll toy cars down it.

2 How far?

How far does your car travel after leaving the ramp? What is the best way to measure this distance? Why?

3 What will you change?

In groups, discuss what will make your car travel further after it leaves the ramp. Try some of these ideas to see what happens.

What things made your car go further? What things made your car go faster?

4 Let it rip.

Roll your car down the ramp. Make sure you don't push the car. Measure the distance it travelled after it left the ramp. Do this four times.

Use BLM 5.1 to record your results.

Make the car heavier. Roll the car down the ramp another four times. Record your results.

Investigate what happens if you make the ramp steeper. Record your results on **BLM 5.2**.

5 Reporting back.

Describe the results of the ramp tests.

What was your group's best distance? Explain why? Was this distance more or less than a metre?

Who is the class ramp champ, and why?

_weblink ^

Go to imathskids.com.au -

the Investigation 5 area contains the weblinks and BLMs that you need to complete this Investigation.

_			
Test	Distance travelled	ls it a metre?	·
		Less than a metre	
		More than a metre	
		About a metre	
~		Less than a metre	
2		More than a metre	
		About a metre	
~		Less than a metre	
3		More than a metre	
		About a metre	
		Less than a metre	
4		Less than a metre More than a metre	
4 2 Cai	r with extra weight	Less than a metre Mare than a metre About a metre	
4 2 Car Test	r with extra weight Distonce travelled	Less than a metre More than a metre About a metre	
4 2 Car Test	r with extra weight Distonce travelled	Less than a metre More than a metre About a metre	
4 2 Car Test	r with extra weight Distonce travelled	Less than a metre Mare than a metre About a metre Is it a metre? Less than a metre Mare than a metre	
4 2 Car Test	r with extra weight Distance travelled	Less than a metre More than a metre About a metre Is it a metre? Less than a metre More than a metre About a metre	
4 2 Car Test	r with extra weight Distance travelled	Less than a metre More than a metre About a metre Is it a metre? Less than a metre More than a metre About a metre Less than a metre Less than a metre	
4 2 Car Test 1 2	r with extra weight Distance travelled	Less than a metre More than a metre About a metre Less than a metre More than a metre About a metre Less than a metre More than a metre	
4 2 Car Test 1 2	r with extra weight Distance trovelled	Less than a metre More than a metre About a metre Less than a metre About a metre About a metre Less than a metre More than a metre More than a metre About a metre	
4 2 Car Test 1 2	r with extra weight Distonce travelled	Less than a metre More than a metre About a metre Less than a metre More than a metre More than a metre More than a metre More than a metre About a metre About a metre Less than a metre Less than a metre	
4 2 Car Test 1 2 3	r with extra weight Distance travelled	Less than a metre More than a metre About a metre Less than a metre More than a metre About a metre Less than a metre About a metre About a metre Less than a metre About a metre More than a metre More than a metre	
4 2 Car Test 1 2 3	r with extra weight Distonce travelled	Less than a metre More than a metre About a metre Less than a metre About a metre	
4 <u>Test</u> 1 2 3	r with extra weight Distance travelled	Less than a metre More than a metre About a metre Less than a metre About a metre More than a metre About a metre Less than a metre More than a metre Less than a metre Less than a metre About a metre	
4 2 Car Test 1 2 3 4	r with extra weight Distance travelled	Less than a metre More than a metre About a metre Less than a metre More than a metre About a metre More than a metre	



NA1 Count in ones

I can count in ones like this -1, 2, 3, ...Can you start at another number like 14? 14, 15, 16, ... keep going and stop at 20.

1 Count on and write the missing numbers.





3,

9,

- 2 Count on one more. 17, 4,
- 3 Count back one.



15,

4 Count back and write the missing numbers.



32 iMaths 1 Student Book 5 Write the missing numbers.

Write the missing numbers.									
	2		4	5	6		8		10
	12	13			16	17			20
	22		24			27	28	29	
31		33	34		36			39	40
	42	43				47	48	49	50
51			54	55			58		
61		63			66	67			70
	72			75	76	77	78		80
		83	84		86			89	
91	92			95		97	98		

6 Count back one and count on one.







Problem solving strategies 5 Find a pattern



Keep the pattern going. Which bead will be next?

Discuss the solution

The **find a pattern** strategy will be useful here.

The beads are arranged in sets of three.

The pattern of one 🔂 then 🔴 then 🕢 repeats.

To keep this pattern going, the next bead will be a \bigcirc .



3

4

5

Draw a picture or diagram

Act out the problem

Find a pattern



8

9

10

Make an organised list

Solve a simpler problem

Work backwards