









Can you help the Highways Agency by converting these values to keep the traffic flowing?

MOTORWAY ISSUE	Conversion	Working Out	Answer
	Congestion on this road – please convert to a BINARY VALUE to solve the issue.		
	Congestion on the 62 road – please convert into a HEXADECIMAL VALUE to solve the issue		
	Broken down lorry on the M1 to clear – 1) Covert each value to binary 2) Add the values together		
	Sign missing the distance for Manchester. Covert the Hex value C9 into Denary		
	Green Lambo caught speeding at DA mph, please convert to 1- Denary 2- Binary		
	Major re surfacing work on the M1 – delays expected. Convert this to Hex 10010011 Convert this to Denary E8 Total the values		

Teachers Guide

Copy the front sheet and share with the students.

or

Cut up each tasks and let students randomly solve the issue.

Create Teams and time how long it takes each student / group to complete the task and get the correct answer.

The team with the lowest time are the Top Highway Agency Team.

The winners could where Hiviz jackets

Extension Activities

Get student to create their own version, copy and share

Set a time limit to solve the issue or the Team is fined

One student reads the question and instructs another how to answer the question.
The scribe can only follow the instructions.

ANSWERS

Conversion	Answer
Congestion on this road – please convert to a BINARY VALUE to solve the issue.	10100001
Congestion on the 62 road – please convert into a HEXADECIMAL VALUE to solve the issue	3E
Broken down lorry on the M1 to clear – 3) Covert each value to binary 4) Add the values together	00100000
	00111011
	01011011
Sign missing the distance for Manchester. Covert the Hex value C9 into Denary	201
Green Lambo caught speeding at DA mph, please convert to 3- Denary 4- Binary	218
	11011010
Major re surfacing work on the M1 – delays expected. Convert this to Hex 10010011 Convert this to Denary E8 Total the values	93
	11101000
	379 or 101111011 or 17b