

Fun with Sums

An activity of "Clearing space debris"

Fifty years ago, would anyone have imagined that the vast mysterious outer space could become cluttered with man-made objects one day? **"Clearing space debris"** (page 12-13, *What's Up* March 2020) opens our eyes to a new reality — killer litter in space.

Read the article carefully. In pairs, solve the following problems. Do your working on the reverse of this sheet.

1. A piece of space debris X is moving at 28,920 km/h and a car Y on earth is travelling at 120 km/h. It is given that the speed of debris X is seven times faster than a bullet Z.

i. State the ratio of the speed of bullet Z to the speed of space debris X. ANSWER: _____

ii. Find the speed of bullet Z, in m/s (correct to 3 decimal places). ANSWER: _____


iii. Write the speed of car Y as a fraction of the speed of space debris X. ANSWER: _____

2. The following table lists the estimated number of objects currently orbiting the earth in space.

Item	Objects orbiting the earth in space	Number of objects
a.	Space debris smaller than 1cm	170 million
b.	Space debris as big as 10cm	Half a million
c.	Space debris larger than 10cm	21,000
d.	Operational satellites	1,419

i. Write 170 million as numerals. ANSWER: _____

ii. Draw a bar chart in the box below to represent the above information for items b, c, and d.



iii. State one limitation of such a bar chart. ANSWER: _____