

Subject 31

PROBLEMS (RATIOS – EQUATIONS)

Please do not write on this exam paper and give it back at the end of the test

Ex1 :

To mix concrete you need 4 shovelfuls of sand, 2 shovelfuls of gravel and 1 shovelful of cement.
If 56 shovelfuls are put into a mixer, how many would be of gravel?

Ex2 :

Dried dog food is available in three sizes:
1 kg bags, which cost £6; 3 kg bags, which cost £15; and 8 kg bags, which cost £25.
What is the smallest number of bags you can buy so that the average price per kg is exactly £4?

Ex3 :

Adam, Barney and Joe carry 999 books out of the library.
Adam works for 3 hours, Barney works for 4 hours and Joe works for 5 hours.
They work at different speeds, with Adam carrying 5 books for every 3 books Barney carries and every 2 books Joe carries.
How many books did Adam carry?

Vocabulary:

Concrete: béton
Shovelfuls: pelletées
Mixer: bétonneuse