In the Land of Diagrams[1], Part 1
September 24, 2016

1. Baa, baa, black sheep

- Sometimes the black sheep doesn't give its wool equally to the master, the dame, and the little boy.
- Sometimes the master and dame even have to share their bag between the two of them.
- Last year the sheep gave 12 bags.
- 5 went to the little boy.
- The sheep gave to the master 5 times and to the dame 6 times.

Baa, baa, black sheep,
Have you any wool?
Yes, sir, yes, sir,
Three bags full.
One for my master,
And one for my dame,
And one for the little boy
Who lives down the lane.

How many times did the master get a bag by himself?

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[1] These problems were taken from *Venn Perplexors*, Level B, by Evelyn Christensen.

2. She sells seashells

She sells seashells on the seashore;
The shells that she sells are seashells I'm sure.
So if she sells seashells on the seashore,
I'm sure that the shells are seashore shells.

- Sheila has been collecting shells all week to sell.
- She found 57 scallops (which are her favorites).
- She also really likes pink shells. She found 32 of those.
- 48 of the shells weren't pink or scallops.

If Sheila found 114 shells in all, how many of her scallops weren't pink?

3. Wee Willie Winkie

Wee Willie Winkie runs through the town,
Upstairs and downstairs in his nightgown,
Rapping at the window,
Crying through the lock,
Are all the children in their beds?
For now it's eight o'clock.

- There are 41 children in the town.
- When Wee Willie runs through at 8 o'clock checking on them, he finds only 32 of them in bed.
- 34 of the children have brushed their teeth.
- 3 naughty children have not brushed their teeth or gone to bed!

How many need to get out of bed to go brush their teeth?