Reasoning and Problem Solving – Add Lengths 2

National Curriculum Objectives:

Mathematics Year 3: (3M1a) Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)

Differentiation:

Developing Add three different distances in the same unit of measure, all in multiples of 10.
Secure Add five different distances in combined units of measure, all in multiples of 10.
Mastery Add five different distances in different units of measure, all in multiples of 5.

More Reasoning and Problem Solving Resources.

Did you like this resource? Don't forget to review it on our website.

Reasoning and Problem Solving – Add Lengths 2

1. Baahi Bee is flying from flower to flower.

On Tuesday he travelled 80cm.
On Wednesday he travelled 30cm.
On Friday he travelled 40cm.

Baahi thinks he has travelled 150cm.
Is he correct? Explain your answer.

2. Harry Hornet is making his way across the forest.

On Monday he travelled 2m.
On Wednesday he travelled 3m.
On Friday he travelled 4m.

Harry thinks he has travelled 8m.
Is he correct? Explain your answer.

3. Wei Worm is making her way through the soil.

On Tuesday she travelled 70cm.
On Thursday she travelled 150cm.
On Friday she travelled 90cm.

Wei thinks she has travelled 300cm.
Is she correct? Explain your answer.

4. Sarra Snail is making her way across the garden path.

On Monday she travelled 20mm.
On Tuesday she travelled 50mm.
On Friday she travelled 80mm.

Sarra thinks she has travelled 100mm.
Is she correct? Explain your answer.

Reasoning and Problem Solving – Add Lengths 2

5. Cal caterpillar is making his way across the garden.

On Monday he travelled 1m.
On Tuesday he travelled 80cm 50mm.
On Wednesday he travelled $\frac{1}{2}$ m.
On Thursday he travelled 150cm.
On Friday he travelled 400mm.

Squirmy thinks he has travelled 5m.
Is he correct? Explain your answer.

6. Betty Butterfly is making her way through the trees.

On Monday she travelled 210mm.
On Tuesday she travelled 2m 70cm.
On Wednesday she travelled 1m 90cm.
On Thursday she travelled 150cm.
On Friday she travelled 40cm 10mm.

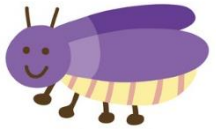
Betty thinks she has travelled 7m.
Is he correct? Explain your answer.

7. Lucy Ladybird is making his way across the flowers.

On Monday he travelled 1m 50cm.
On Tuesday he travelled 60cm 20mm.
On Wednesday he travelled 220cm.
On Thursday he travelled 280mm.
On Friday he travelled 400mm.

Lucy thinks she has travelled 5m.
Is he correct? Explain your answer.

8. Filip fly is making his way across the lounge.



On Monday he travelled 1m.
On Tuesday he travelled 30cm 20mm.
On Wednesday he travelled 160cm.
On Thursday he travelled $\frac{1}{2}$ m.
On Friday he travelled 400mm.

Filip thinks he has travelled 4m.
Is he correct? Explain your answer.

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9. Sid Spider is making his way up the drainpipe.

On Monday he travelled 15cm 20mm.
On Tuesday he travelled 5m 25cm.
On Wednesday he travelled $\frac{1}{2}$m.
On Thursday he travelled 175cm.
On Friday he travelled 400mm.

Sid thinks he has travelled 8m 10cm.
Is he correct? Explain your answer.

10. Samia Centipede is making her way down the post.

On Monday she travelled 330mm.
On Tuesday she travelled 225cm.
On Wednesday she travelled $\frac{1}{4}$m.
On Thursday she travelled 2m 65cm.
On Friday she travelled 910mm.

Samia thinks she has travelled 6m 50cm.
Is she correct? Explain your answer.

11. Sajal Scorpion is making his way across the desert.

On Monday he travelled 2m 35cm.
On Tuesday he travelled $\frac{1}{4}$m.
On Wednesday he travelled 90cm 40mm.
On Thursday he travelled 445cm.
On Friday he travelled 210mm.

Sajal thinks he has travelled 8m 20cm.
Is he correct? Explain your answer.

12. Billy Beetle is making his way across the patio.

On Monday he travelled 1m 95cm.
On Tuesday he travelled 35cm 50mm.
On Wednesday he travelled 295cm.
On Thursday he travelled $\frac{3}{4}$ m.
On Friday he travelled 540mm.

Billy thinks he has travelled 5m 59cm.
Is he correct? Explain your answer.

Reasoning and Problem Solving – Add Lengths 2

Developing

1. Yes, Baahi is correct. He has travelled 150cm. 80cm + 30cm + 40cm =150cm.
2. No, Harry is incorrect. He has travelled 9m. 2m + 3m + 4m = 9m.
3. No, Wei is incorrect. She has travelled 310cm. 70cm + 150cm + 90cm = 310cm.
4. No, Sarra is incorrect. She has travelled 150mm. 20mm + 50mm + 80mm =150mm.

Secure

Children should convert all the values to one unit of measure (e.g. centimetres) to complete the additions, then simplify the answer.

5. No, Cal is incorrect. He has travelled 4m 25cm in total. 100cm + 85cm + 50cm +150cm + 40cm = 425cm or 4m 25cm.
6. No, Betty is incorrect. She has travelled 6m 72cm in total. 21cm + 270cm + 190cm + 150cm + 41cm = 672cm or 6m 72cm.
7. Yes, Lucy is correct. She has travelled 5m.
150cm + 62cm + 220cm + 28cm + 40cm = 500cm or 5m.
8. No, Filip is incorrect. He has travelled 3m 82cm in total.
100cm + 32cm + 160cm + 50cm + 40cm = 382cm or 3m 82cm not 4m.

Mastery

Children should convert all the values to one unit of measure (e.g. centimetres) to complete the additions, then simplify the answer.

9. No, Sid is incorrect. He has travelled 8m 7cm in total. 17cm + 525cm + 50cm + 175cm + 40cm = 807cm or 8m 7 cm.
10. No, Samia is incorrect. She has travelled 6m 39cm in total. 33cm + 225cm + 25cm + 265cm + 91cm = 639cm or 6m 39cm.
11. Yes, Sajal is correct. He has travelled 8m 20cm in total. 235cm + 25cm + 94cm + 445cm + 21cm = 820cm or 8m 20cm.
12. No, Billy is incorrect. He has travelled 6m 59cm in total. 195cm + 40cm + 295cm + 75cm + 54cm = 659cm or 6m 59cm.