Camp maths *Stg 6/E7*   add/sub   Name _____

Maths investigations and word problems: these are the type of nasty maths problems you might find lying around with the odd socks and lost undies after a school camp. Use your maths book to write out the problem in a logical fashion. Look out for your operation, keep your place value and keep cool 'til after school.

1.   Mike the camp director needed to cook tea for Thursday night. He needed to figure out how many brussels-sprouts to boil up. He figured he'd give everyone 2 sprouts each. There were 12 boys in cabin one, 8 in cabin two, and 13 in cabin three. There were also 10 girls in cabin seven, 9 in cabin ten and 14 in cabin eleven. There were 15 parents at camp helping, plus another 5 were expected to come out for the night. He put in another half dozen just to make sure there were enough. How many sprouts did he need?

2.   The 6 cars going out to camp all took slightly different routes because of who they were picking up. Aimee went 31km, Roger went 26.4km, Vicky went 32km, Grant found the short cut and only went 25.5km, Angela drove 40km and Gary went 28.6km. What was the total distance all 6 cars travelled to get to camp? Extra for experts: what was the **average** distance travelled? If they were each given 50 cents per kilometre for petrol for the average journey, how much money would they get?

> **Hint: to get the average of a set of numbers, add them up first, then divide that total by the amount of numbers you added up.**
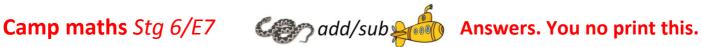
3.   Mary the camp director needed to pop into the wholesalers in town to get some groceries for camp. She had $300 in cash to spend. 4 kilos of peas were $8.99, 10 kilos of mixed veges were $23.50. 80kg of potatoes were $77.60, 6 bags of rice came to $17.95. 5 kilos of fresh tomatoes came to $21.30 and 16 loaves of good quality bread were $35.40. 20 litres of milk came to $59.90 and 5 sticks of butter were 14.95. Raw carrots were on special, so she bought 10 kilos for $15.00 and 3kg of fresh runner beans cost $9.80. 7 tins of beetroot came to $13.80 and 7 tins of baked beans were also $13.80. How much did she spend? What was her change? Bonus question: How many kilos of *fresh* veges did she buy?

4.   The boys from cabin two decided to have a marshmallow eating competition (caution - do NOT try this at camp). Lachie ate 23, Ben ate 17, Liam ate 18, Finn ate 15, Jamie ate 21 and Logan won by eating 29 marshmallows (he was not well afterwards). How many marshmallows did the boys eat? Marshmallows come in packets of 50. How many packets did they open?

5.   The camp pool was a bit low after a busy summer. Mike decided to fill it up one last time before the end of the season. The tap can pour 100 litres per hour. It took 6 hours and 15 minutes to top up the pool. How many litres of water went in? How much water was left in the 1000 litre trailer-tank he used?

6.   One of the challenges at camp was to play 'Lava' – a game where you pretend the floor is made of molten lava, and you can't stand on it. The teams had to build a 'bridge' from the furniture in the hall; the winners got the furthest across the hall. Cabin 7 girls won by using 2 x 2.34 metre long bench seats, a 2.75m table, 4 regular chairs at 0.50 metres each, a 1.80m long sleeping bag and a 1.76m long couch. How long was the girls' bridge? The second place getters, boys from cabin 3, used the same stuff but had a 1.25 metre long inflatable dinghy instead of the sleeping bag. How long was the lads' bridge?

1. Mike the camp director needed to cook tea for Thursday night. He needed to figure out how many brussels-sprouts to boil up. He figured he'd give everyone 2 sprouts each. There were 12 boys in cabin one, 8 in cabin two, and 13 in cabin three. There were also 10 girls in cabin seven, 9 in cabin ten and 14 in cabin eleven. There were 15 parents at camp helping, plus another 5 were expected to come out for the night. He put in another half dozen just to make sure there were enough. How many sprouts did he need?

12 + 8 + 13 + 10 + 9 + 14 + 15 + 5 = 86 (x 2) = 172 (+ 6) = **178**

2. The 6 cars going out to camp all took slightly different routes because of who they were picking up. Aimee went 31km, Roger went 26.4km, Vicky went 32km, Grant found the short cut and only went 25.5km, Angela drove 40km and Gary went 28.6km. What was the total distance all 6 cars travelled to get to camp? Extra for experts: what was the **average** distance travelled? If they were each given 50 cents per kilometre for petrol for the average journey, how much money would they get?

31 + 26.4 + 32 + 25.5 + 40 + 28.6 = **183.5**   183.5 ÷ 6 = **30.58km av.** $15.29 or **$15.30 each**

3. Mary the camp director needed to pop into the wholesalers in town to get some groceries for camp. She had $300 in cash to spend. 4 kilos of peas were $8.99, 10 kilos of mixed veges were $23.50. 50kg of potatoes were $77.60, 6 bags of rice came to $17.95. 5 kilos of fresh tomatoes came to $21.30 and 16 loaves of good quality bread were $35.40. 20 litres of milk came to $29.90 and 5 sticks of butter were 14.95. Raw carrots were on special, so she bought 10 kilos for $15.00 and 3kg of fresh runner beans cost $9.80. 7 tins of beetroot came to $13.80 and 7 tins of baked beans were also $13.80. How much did she spend? What was her change? Bonus question: How many kilos of *fresh* veges did she buy?

8.99 + 23.50 + 77.60 + 17.95 + 21.30 + 35.40 + 29.90 + 14.95 + 15.00 + 9.80 + 13.80 + 13.80 = **$281.99**

$300 – 281.99 (282) = **$18.00 change**   50 + 5 + 10 + 3 = **68kg** of fresh veg.

4. The boys from cabin two decided to have a marshmallow eating competition (caution - do NOT try this at camp). Lachie ate 23, Ben ate 17, Liam ate 18, Finn ate 15, Jamie ate 21 and Logan won by eating 29 marshmallows (he was not well afterwards). How many marshmallows did the boys eat? Marshmallows come in packets of 50. How many packets did they open?

23 + 17 + 18 + 15 + 21 + 29 = **123 marshmallows, 3 open packets**

5. The camp pool was a bit low after a busy summer. Mike decided to fill it up one last time before the end of the season. The tap can pour 100 litres per hour. It took 6 hours and 15 minutes to top up the pool. How many litres of water went in? How much water was left in the 1000 litre trailer-tank he used?

6 x 100 = 600, 15mins = ¼ hour, ¼ of 100 = 25, 600 + 25 = **625 litres**, 1000 – 625 = **375 litres**

6. One of the challenges at camp was to play 'Lava' – a game where you pretend the floor is made of molten lava, and you can't stand on it. The teams had to build a 'bridge' from the furniture in the hall; the winners got the furthest across the hall. Cabin 7 girls won by using 2 x 2.34 metre long bench seats, a 2.75m table, 4 regular chairs at 0.50 metres each, a 1.80m long sleeping bag and a 1.76m long couch. How long was the girls' bridge? The second place getters, boys from cabin 3, used the same stuff but had a 1.25 metre long inflatable dinghy instead of the sleeping bag. How long was the lads' bridge?

Girls: 2.34 + 2.34 + 2.75 + (4 x .5 = 2.00) + 1.80 + 1.76 = **12.99 metres**.
Boys: (12.99 – 1.8 = 11.19) + 1.25 = **12.44 metres**