## Year 5 and 6 Problem Solving

Q1. Stuart went to the Newtown market fair and bought 3 coffee mugs at $\$ 1.67$ each, a T-shirt for $\$ 7.95$ and 4 second hand books at 35 cents each. How much change is left over from $\$ 20.00$ ?

Q2. Anne gets paid $\$ 31.75$ for 5 hours baby sitting. How much would she earn for
(a) 1 hour of baby sitting?
(b) 7 hours of baby sitting?

Q3. 7 shirts cost $\$ 128.45$. What is the cost of
(a) 1 shirt
(b) 10 shirts

Q4. Gloworm washing powder comes in 3 different sizes:
500 g at $\$ 1.49,1 \mathrm{~kg}$ at $\$ 2.88,2 \mathrm{~kg}$ at $\$ 5.80$
Which is the best buy?
Q5. Find two numbers which multiply to give 24 , and at the same time the numbers must also add up to give 11 .

Q6. Jane is 5 years older than Tom. Three times Jane's age plus twice Tom's age is 35 . What are the ages of Jane and Tom?

Q7. Try to find a quick method of working out these totals:
(a) $6+8+10+12+6+8+10+12+6+8+10+12+6+8+10$ $+12+6+8+10+12$
(b) The sum of all the even numbers up to 100
$2+4+6+8+10+\ldots \ldots . .+94+96+98+100$
Q8. The area of a certain rectangle is $10 \mathrm{~cm}^{2}$. If the length and breadth is now tripled (made 3 times bigger), what is the area of the larger rectangle?

Q9. With the help of a tree diagram, write down the 12 different ways you can arrange 2 letters from $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D without repeating letters. Note that $A B$ is a different arrangement from BA.

Q10. If I think of a number, multiply it by 9 and then subtract 2, then I am left with 34. What is the number that I first thought of?

Q11. Greg is 8 years younger than Sam. Andrew is 17 years older than Greg. If Andrew is 42, how old is Sam?

