Algebra Excellence Practice.

- 1. Two numbers have a sum of 34 and a difference of 8. What are the two numbers?
- 2. Two railway bridges have a total length of 435m. One bridge is 78M longer that the other. Calculate the length of the shorter bridge.
- 3. A cell phone company charges a connection fee each month and users also pay for the total time that have used. This is charged by the minute. In August a user paid \$16 for a total of 6 minutes use. In September the same user paid \$29 for a total of 32 minutes use. Find out the monthly connection fee and charge per minute.
- 4. Kevin buys seven tickets to the Rugby World Cup for two adults and five children. The total cost of the tickets is \$140. A child's ticket costs \$7 less than an adult's ticket. Calculate the cost of an adult's ticket.
- 5. The sides of a rectangle are (x+1) and (x+9) metres. If the area is $20m^2$, calculate the lengths of the sides.
- 6. A woman is 22 years older than her daughter. Their ages multiply to 135. Calculate the mother's age.
- 7. Three more than a number is added to the square of the same number and the total is 9. Find the two possible numbers.
- 8. Two consecutive numbers multiply to give 156. Find the numbers.
- 9. Two consecutive even whole numbers have a product of 168. What are the two numbers?
- 10. Two consecutive multiples of 3 have a product of 378. Find the numbers.
- 11. Find the two positive and negative numbers whose difference is 7 and whose product is 228.