

National 5 Final Exam Practice

Algebraic Skills

Formula – Changing the Subject

Average Allocation

2/3 Marks

1. Change the subject of the formula to g .

$$4f + 2g = 13$$

2. Change the subject of the formula to p .

$$8q - 3p = 12$$

3. Change the subject of the formula $3a^2 - 5b = 2$ to a .

4. Change the subject of the formula $\frac{p^2}{5} + q = 12$ to p .

5. Change the subject of the formula $\frac{5}{v} = \frac{v}{4w}$ to v .

6. Change the subject of the formula $3(2f + g) = 11$ to g .

7. The formula to convert a temperature from degrees Celsius to degrees Fahrenheit is

$$F = \frac{9}{5} C + 32$$

Change the subject of this formula to C , and use it to convert 10 degrees Celsius to Fahrenheit.

8. Change the subject of the formula $\frac{5(2q-r)}{4} = \frac{p}{2}$ to r .

9. Change the subject of the formula $\frac{3}{v^2} = 2$ to v .

10. The volume of a sphere is calculated using the formula $V = \frac{4}{3}\pi r^3$.

Change the subject of the formula to r .

11. Change the subject of the formula $v = 3\sqrt{q}$ to q .

12. Change the subject of the formula $4(v + 3w) = 2q$ to w .

13. Change the subject of the formula $\frac{2}{5}(a + 2b) = p$ to b .

14. Change the subject of the formula $4e = 12 - 5f^2$ to f .

15. Change the subject of the formula $\frac{1}{3}F = 4(T - 2)$ to T .