



Changing the Subject of a Formula Exam Practice

Q1. Make a the subject of the formula, $ab = c$

Answer: _____
(1 mark)

Q2. Make b the subject of the formula, $\frac{a}{b} = c$

Answer: _____
(1 mark)

Q3. Make p the subject of the formula, $p + q = r$

Answer: _____
(2 marks)



Q4. Make u the subject of the formula, $uv - q = r$

Answer: _____
(2 marks)

Q5. Make f the subject of the formula, $g + f^2 = h$

Answer: _____
(2 marks)

Q6. Make a the subject of the formula, $c + \frac{a}{b} = d$

Answer: _____
(3 marks)



Q7. Make r the subject of the formula, $\frac{r}{3s} = 2c$

Answer: _____
(1 mark)

Q8. Make p the subject of the formula, $ap + q = r$

Answer: _____
(2 marks)

Q9. Make c the subject of the formula, $a = -b + c$

Answer: _____
(2 marks)



Q10. Make a the subject of the formula, $\sqrt{a - b} = c$

Answer: _____
(2 marks)

Q11. Make m the subject of the formula, $l = 3m - 2n$

Answer: _____
(4 marks)

Q12. Make f the subject of the formula, $gf^3 = h$

Answer: _____
(2 marks)



Q13. Here is a formula: $2x + \frac{3}{5}y = z$

(a) make x the subject

Answer: _____
(2 marks)

(b) make y the subject

Answer: _____
(2 marks)



Applied Mixed Practice Problems

Q14. Roger runs a taxi firm. He charges customers £3 for each mile he drives, as well as a fixed charge of 50p. Let C be the total cost paid by a customer in pounds.

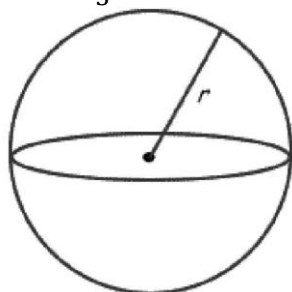
(i) Write down a formula for C if a customer travels m miles

Answer: _____
(2 marks)

(ii) Find a formula for the number of miles travelled if the cost paid is C pounds.

Answer: _____
(2 marks)

Q15. Below is a sphere, radius r . The formula for the volume V of the sphere is $V = \frac{4}{3}\pi r^3$. Work out a formula for the radius of a sphere with volume V .



Answer: _____
(3 marks)



Q16. The circumference c of a circle has the formula as $C = \pi d$ where d is the diameter. Find a formula for r where r where is the radius of the circle.

Answer: _____
(3 marks)

Q17. Temperature is measured in Centigrade C, Fahrenheit F or Kelvins (K).
We have the following formulae: $C = K - 273$, and
 $F = 1.8C + 32$

a) Find a formula to convert degrees C to F

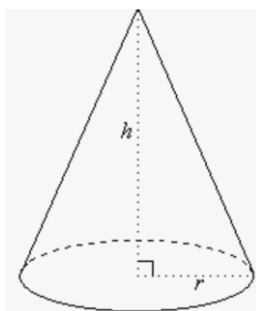
Answer: _____
(2 marks)

b) Hence, or otherwise, find a formula to convert K to F

Answer: _____
(2 marks)



Q18. The volume V of a cone is given by $\frac{1}{3}\pi r^2 h$. Find a formula for the radius r .



Answer: _____
(3 marks)