Rearranging Formulae

IGCSE Maths · Grades 9–10 · British and American curriculum · About 25 minutes · 8 questions

Name _____ Date _____ Score / 8

WHAT YOU WILL PRACTISE

- Change the subject of a formula in one or two steps
- Rearrange formulae that contain fractions
- Rearrange a formula where the subject is squared

WORKED EXAMPLE

Make x the subject of $y = 2x + 9$.

1. Subtract 9 from both sides: $y - 9 = 2x$.
2. Divide both sides by 2: $(y - 9)/2 = x$.
3. Write it with x on the left: $x = (y - 9)/2$.

Answer: $x = (y - 9)/2$

Questions

Show your working in the space under each question.

1. Make x the subject of $y = x + 7$

2. Make x the subject of $y = 4x$

3. Make x the subject of $y = 3x - 5$

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4. Make t the subject of $v = u + at$

5. Make r the subject of $C = 2\pi r$

6. Make x the subject of $y = x/5 + 2$

7. Make b the subject of $A = \frac{1}{2}bh$

8. Make x the subject of $y = x^2 + 4$, where x is positive

Answers: Rearranging Formulae

Mark your own work, then go back to any question you got wrong before reading the tutor tip.

Q	QUESTION	ANSWER
1	Make x the subject of y = x + 7	**x = y − 7**
2	Make x the subject of y = 4x	**x = y/4**
3	Make x the subject of y = 3x − 5	**x = (y + 5)/3**
4	Make t the subject of v = u + at	**t = (v − u)/a**
5	Make r the subject of C = 2πr	**r = C/(2π)**
6	Make x the subject of y = x/5 + 2	**x = 5(y − 2)**
7	Make b the subject of A = ½bh	**b = 2A/h**
8	Make x the subject of y = x^2 + 4, where x is positive	**x = √(y − 4)**

TUTOR TIP

Undo the operations in reverse order, doing the same thing to both sides, exactly as you would when solving an equation.

Stuck on a question? Work through it live with a tutor.

YFCampus offers one-to-one online Maths tutoring matched to your school curriculum. Book a free trial class at **www.yfcampus.com/bh**

Written for students aged 13 to 16 and suitable for Grades 9–10. Check your school's curriculum for the exact order of topics. YFCampus is independent and is not affiliated with any exam board or education ministry.