Rearranging Formulas

Grade 8–10 Math · Grades 8–10 · About 25 minutes · 8 questions

Name _____ Date _____ Score / 8

WHAT YOU WILL PRACTICE

- Solve a formula for one variable in one or two steps
- Rearrange formulas that contain fractions
- Rearrange a formula where the variable is squared

WORKED EXAMPLE

Solve for x in $y = 2x + 9$.

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 work in the space under each question.

1. Solve for x in $y = x + 7$

2. Solve for x in $y = 4x$

3. Solve for x in $y = 3x - 5$

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4. Solve for t in $v = u + at$

5. Solve for r in $C = 2\pi r$

6. Solve for x in $y = x/5 + 2$

7. Solve for b in $A = \frac{1}{2}bh$

8. Solve for x in $y = x^2 + 4$, where x is positive

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Answers: Rearranging Formulas

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

Q	QUESTION	ANSWER
1	Solve for x in y = x + 7	**x = y − 7**
2	Solve for x in y = 4x	**x = y/4**
3	Solve for x in y = 3x − 5	**x = (y + 5)/3**
4	Solve for t in v = u + at	**t = (v − u)/a**
5	Solve for r in C = 2πr	**r = C/(2π)**
6	Solve for x in y = x/5 + 2	**x = 5(y − 2)**
7	Solve for b in A = ½bh	**b = 2A/h**
8	Solve for x in y = x² + 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 Math tutoring matched to your school curriculum. Book a free trial class at **www.yfcampus.com/ph**

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