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| **Solving Problems Using Linear Equations** |
| Matches a given equation with a scenario it describesRoula earns $12 an hour plus $30 a shift in tips. I circled the equation that can be used to determine how many hours Roula worked if she earned $114.114 = 12 + 30h114 = 12*h* + 30114 + 30 = 12*h* | Solves problems related to situations that can be modelled by given linear equations  114 = 12*h* + 30Subtract 30 from each side.114 – 30 = 12*h* + 30 – 30 84 = 12*h*Divide both sides by 12. =  7 = *h*Roula worked 7 h. | Writes a linear equation to represent a given situation and uses it to solve a problemSuppose you know that a student spent $30 at a fall fair.The entrance fee was $12 and each ride cost $3.How many rides did they go on?I can let *x* be the number of rides they went on, write an equation, and solve it. 30 = 12 + 3*x* Subtract 12 from each side.30 – 12 = 12 + 3*x*– 12 18 = 3*x*Divide both sides by 3. =  6 = *x*The student went on 6 rides. | Writes linear expressions or equations to model and compare two given situations to solve problemsThe student could instead go to a different fall fair and pay $8 entrance and $4 per ride.If they go on the same number of rides, is this a cheaper option?An expression to describe the cost of this option is 8 + 4*x*, where *x* is the number of rides.When *x* = 6, 8 + (4)(6) = 8 + 24 = 32$32 > $30, so this is a more expensive option. |
| **Observations/Documentation** |
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