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| **Solving Problems Using Linear Equations** | | | |
| Matches a given equation with a scenario it describes  Roula 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 + 30h  114 = 12*h* + 30  114 + 30 = 12*h* | Solves problems related to situations that can be modelled by given linear equations  114 = 12*h* + 30 Subtract 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 problem  Suppose 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 problems  The 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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