U4 L3-2b **Which is Best??** 7.EE.2

1. Dina's age *(d)* is 2 ½ times her sister Amanda's age *(a).*

   a. Select all expressions that represent the sum of their ages.

$a + 2.5a$	$2\frac{1}{2}(d + a)$
$2\frac{1}{2}d + a$	$d + \frac{2}{5}d$

   b. Which expression would you choose to use to solve for Dina's age? Explain why this is the best choice?

   c. Which expression would you choose to use to solve for Amanda's age? Explain why this is the best choice?

2. Elisa (e) is 4 inches shorter than her best friend, Danielle (d). Frankie (f) is 1.2 times as tall as Elisa.

   a. Select all expressions that represent the sum of their heights.

$e + (d - 4) + 1.2f$	$d + (d - 4) + 1.2(d - 4)$
$(e - 4) + d + 1.2e$	$e + e + 4 + 1.2e$

   b. Which expression would you choose to use to solve for Danielle's height? Explain why this is the best choice?

   c. Which expression would you choose to use to solve for Elisa's height? Explain why this is best choice?

Which is Best??

3. David *(d)* is 5 years younger than his brother Jacob *(j).* Jacob is twice as old as their sister Claire *(c).*
   a. Select all expressions that represent the sum of their ages.

$d - 5 + j + 2c$	$c + 2c + (j - 5)$	$2c + j + (j - 5)$
$(j - 5) + j + \frac{1}{2}j$	$(d + 5) + j + 2c$	$d + (d + 5) + \frac{1}{2}(d + 5)$

   b. Which expression would you choose to use to solve for Jacob's age? Explain why this is the best choice.

   c. Which expression would you choose to use to solve for David's age? Explain why this is the best choice.

Which is Best??

ANSWER KEY

1. Dina's age *(d)* is 2 ½ times her sister Amanda's age *(a)*.

   a. Select all expressions that represent the sum of their ages.

$a + 2.5a$	$2\frac{1}{2}(d + a)$
$2\frac{1}{2}d + a$	$d + \frac{2}{5}d$

   b. Which expression would you choose to use to solve for Dina's age? Explain why this is the best choice? $d + \frac{2}{5}d$ because the expression is written in terms of *d*, Dina's age.

   c. Which expression would you choose to use to solve for Amanda's age? Explain why this is the best choice? $a + 2.5a$ because the expression is written in terms of a, Amanda's age.

2. Elisa (e) is 4 inches shorter than her best friend, Danielle (d). Frankie (f) is 1.2 times as tall as Elisa.

   a. Select all expressions that represent the sum of their heights.

$e + (d - 4) + 1.2f$	$d + (d - 4) + 1.2(d - 4)$
$(e - 4) + d + 1.2e$	$e + e + 4 + 1.2e$

   b. Which expression would you choose to use to solve for Danielle's height? Explain why this is the best choice? $d + (d - 4) + 1.2(d - 4)$ because the expression is written in terms of *d*, Danielle's age.

   c. Which expression would you choose to use to solve for Elisa's height? Explain why this is best choice? $e + e + 4 + 1.2e$ because the expression is written in terms of *e*, Elisa's age.

Which is Best??

3. David *(d)* is 5 years younger than his brother Jacob *(j)*. Jacob is twice as old as their sister Claire *(c)*.

   d. Select all expressions that represent the sum of their ages.

$d - 5 + j + 2c$	$c + 2c + (j - 5)$	$2c + j + (j - 5)$
$(j - 5) + j + \frac{1}{2}j$	$(d + 5) + j + 2c$	$d + (d + 5) + \frac{1}{2}(d + 5)$

   e. Which expression would you choose to use to solve for Jacob's age? Explain why this is the best choice. $(j - 5) + j + \frac{1}{2}j$ because the expression is written in terms of *j*, Jacob's age.

   f. Which expression would you choose to use to solve for David's age? Explain why this is the best choice. $d + (d + 5) + \frac{1}{2}(d + 5)$ because the expression is written in terms of *d*, David's age.