

Varied Fluency Two-Step Equations

Developing

1a. True; False, $4y + 1 = 21$

2a. 10

3a.

$5a + 2 = 32$	X	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>5</td><td>5</td><td>5</td><td>5</td><td>3</td></tr> <tr><td>?</td><td></td><td></td><td></td><td></td></tr> </table>	5	5	5	5	3	?								
5	5	5	5	3												
?																
$6a - 9 = 15$	X	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>4</td><td>4</td><td>4</td><td>4</td><td>4</td><td>4</td><td>-9</td></tr> <tr><td>?</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	4	4	4	4	4	4	-9	?						
4	4	4	4	4	4	-9										
?																
$23 = 3 + 4a$	X	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>6</td><td>6</td><td>6</td><td>6</td><td>6</td><td>6</td><td>2</td></tr> <tr><td>?</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	6	6	6	6	6	6	2	?						
6	6	6	6	6	6	2										
?																

4a. -4; ÷ 3

Expected

5a. True; False, $2y + 5 = 13$

6a. 12

7a.

$9a \div 3 = 12$	X	$a = 0.5$
$\frac{1}{4}a + 11 = 14$	X	$a = 4$
$9 = 5 + 8a$	X	$a = 12$

8a. +7; ÷ 5

Greater Depth

9a. True; False, $3y \div y = 3$; False, $7 - z = 3$

10a. 60

11a.

$16a + 24 = 28$	X	$a = 4$
$9a + 17 = 21.5$	X	$a = \frac{1}{4}$
$-5 = 6a - 29$	X	$a = 0.5$

12a. -6.3, ÷ 28

Varied Fluency Two-Step Equations

Developing

1b. True; False, $2y - 6 = 8$

2b. 6

3b.

$3a - 5 = 4$	X	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>22</td><td>-4</td><td>-4</td><td>-4</td><td>-4</td><td>-4</td></tr> <tr><td>?</td><td></td><td></td><td></td><td></td><td></td></tr> </table>	22	-4	-4	-4	-4	-4	?					
22	-4	-4	-4	-4	-4									
?														
$2a + 7 = 23$	X	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>3</td><td>3</td><td>3</td><td>-5</td></tr> <tr><td>?</td><td></td><td></td><td></td></tr> </table>	3	3	3	-5	?							
3	3	3	-5											
?														
$2 = 22 - 5a$	X	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>8</td><td>8</td><td>7</td></tr> <tr><td>?</td><td></td><td></td></tr> </table>	8	8	7	?								
8	8	7												
?														

4b. +7; ÷ 5

Expected

5b. True; False, $4y - y = 15$

6b. 9

7b.

$3a \div 2 = 12$	X	$a = 10$
$\frac{1}{2}a + 11 = 16$	X	$a = 0.25$
$8 = 7 + 4a$	X	$a = 8$

8b. -4; ÷ 6

Greater Depth

9b. True; False, $4y \times 2 = 88$; False, $7 - 2z = -7$

10b. 90

11b.

$20a + 36 = 41$	X	$a = 0.5$
$7a + 34 = 37.5$	X	$a = 5$
$-4 = 6a - 34$	X	$a = \frac{1}{4}$

12b. -9.6, ÷ 45