

## MAT.07.SR.1.000EE.C.162

Sample Item ID:	MAT.07.SR.1.000EE.C.162
Grade:	07
Claim(s):	<b>Claim 1: Concepts and Procedures</b> Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.
Assessment Target(s):	1 C : Use properties of operations to generate equivalent expressions.(DOK 1)
Content Domain:	Expression and Equations
Standard(s):	7.EE.1, 7.EE.2
Mathematical Practice(s):	2, 5
DOK:	1
Item Type:	SR
Score Points:	1
Difficulty:	M
Key:	YYNYY
Stimulus/Source:	
Target-Specific Attributes (e.g., accessibility issues):	
Notes:	Multi-part item

For numbers 1a–1e, select Yes or No to indicate whether each of these expressions is equivalent to  $2(2x + 1)$ .

- 1a.  $4x + 2$   Yes  No
- 1b.  $2(1 + 2x)$   Yes  No
- 1c.  $2(2x) + 1$   Yes  No
- 1d.  $2x + 1 + 2x + 1$   Yes  No
- 1e.  $x + x + x + x + 1 + 1$   Yes  No

*Key and Distractor Analysis:*

- 1a. Y - Equivalent by distributive property
- 1b. Y - Equivalent by commutative property
- 1c. N - Not equivalent by misapplying distributive property
- 1d. Y - Equivalent by understanding 2 as a factor
- 1e. Y - Equivalent by understanding 2 as a factor and distributive property  $2x=(x+x)$