

Name _____

Date _____

Create Equivalent Expressions: Play Answer Sheet

Selected-Response Items—Indicate the letter(s) only.		
1. _____	2. _____	3. _____
4. _____	5. _____	6. _____
Fill-in-the-Blank Items		
7. (a) _____	8. (a) _____	9. (a) _____
(b) _____	(b) _____	(b) _____
(c) _____	(c) _____	
10. _____	11. _____	12. _____
13. (a) _____	14. _____	15. (a) _____
(b) _____		(b) _____
(c) _____		(c) _____
(d) _____		(d) _____
		(e) _____

6. Which expressions are equivalent to $4(x + 7)$? *Select all that apply.*

- A. $4x + 7$
- B. $4x + 28$
- C. $2(2x + 7) + 14$
- D. $3x + 20 + 8 + x$
- E. $x + 28$

Questions 7–15 are fill-in-the-blank questions. Write the correct answers in the spaces provided on the answer sheet.

7. Determine the value for each expression when $y = 3$.

$4y + y - 2 + 10$: (a) _____

$8y - 2y + 8$: (b) _____

Are the two expressions equivalent? Write *yes* or *no*: (c) _____

8. Which expression(s) represents the property? *Select all that apply.*

Associative Property: (a) _____

Commutative Property: (b) _____

Distributive Property: (c) _____

- A. $ab = ab$
- B. $a(b + c) = ab + ac$
- C. $4 + 7 = 7 + 4$
- D. $2(ab) = (2a)b$
- E. $2(x - 3) = 2x - 6$

9. Match the equivalent expressions. *Select all that apply.*

$4x + 16$: (a) _____

$9x + 30$: (b) _____

- A. $3x + 16 + 6x + 14$
- B. $4(x + 4)$
- C. $3(3x + 10)$
- D. $x + (3x + 8) + 8$

10. Complete the expression that is equivalent to $24r + 36$, using the greatest common factor (GCF) of the two terms.

Write the entire expression on the answer sheet.

$24r + 36 =$ _____ (_____ r + _____)

11. Use the Distributive Property to combine the like terms in $3v + v$.

Write the complete answer on the answer sheet.

$3v + v =$ _____ (_____ + _____) = _____ v

12. Use the Distributive Property to write an expression equivalent to $4(5x + 11)$.

$4(5x + 11) = \underline{\hspace{2cm}}$

13. Which property is being applied to each step of the simplification of $2(3x + 10) + 50x$? *Properties may be used more than once.*

$2(3x + 10) + 50x$: Original Equation

$6x + 20 + 50x$: (a)

A. Associative Property

$6x + 50x + 20$: (b)

B. Distributive Property

$(6 + 50)x + 20$: (c)

C. Commutative Property

$56x + 20$: (d)

D. Combine like Terms

14. Write the number that makes the expressions equivalent.

$15x + 20y = \underline{\hspace{1cm}} (3x + 4y)$

15. Order the expressions according to the property being used in each step of the simplification of $3(2x + 18) + 4x$.

(a) : Original equation

A. $10x + 54$

(b) : Distributive Property

B. $3(2x + 18) + 4x$

(c) : Commutative Property

C. $(6 + 4)x + 54$

(d) : Distributive Property (#2)

D. $6x + 4x + 54$

(e) : Combine like Terms

E. $6x + 54 + 4x$