6.6 Distributive Property (6.EE.3 and 6.NS.4)

Notes

Vocabulary

Distributive Property - To multiply a sum by a number, multiply each addend by the number outside the parentheses.

Example: $2(7+4) = 2 \times 7 + 2 \times 4$

Factoring the Expression - Writing a numeric or algebraic expression as a product of their factors.

Example: $6 + 8$ → $2(3+4)$ * pull out a common factor

Guided Practice:

Find $9 \times 8\frac{2}{3}$ mentally. Show the steps you used.

9×8 → 72 + $9 \times \frac{2}{3}$ → 6 = 78

Use the **Distributive Property** to rewrite each algebraic expression.

2.) 3(x+1) → $3x+3$

3.) 5(x+8) → $5x+40$

4.) 4(x+6) → $4x+24$

Factor each expression.

5.) 25 + 60 ÷5 → $5(5+12)$

6.) 4x + 40 ÷4 → $4(x+10)$

7.) 12b + 48 ÷12 → $12(b+4)$

7.) Six friends are going to the state fair. The cost of one admission is $9.50, and the cost for one ride on the Ferris wheel is $1.50. Write two equivalent expressions and then find the total cost.

$6(9.50+1.50) = 6 \cdot 9.50 + 6 \cdot 1.50$

$66

Partner Talk

Use the Distributive Property to rewrite the algebraic expression. 8(x + 7) → $8x+56$

Building on the Essential Question - How can the distributive property help you to rewrite expression?

you can get rid of the outside number by multiplying it by both the inside numbers.

Rate Yourself - How confident are you about using properties? Check the box that applies.