7.EE.2: Worksheet

1. Are the expressions $6(a + 0.5) - 1$ and $6a + 3$ equivalent? Why or why not?

2. Write two equivalent expressions to $5x - 5.5$.

3. Jane just had lunch at Dairy King, and she wants to leave a 16% tip. What are two different expressions that show her total cost relative to her bill before tip ($b$)?

4. Using the information from the previous question, if Jane’s bill before tip was $15.70, what was her total cost? (Round to the nearest cent.)

5. Every flavor of macaroon at Mac’s Macs costs $d$ dollars a piece. If Jeremy buys 3 pistachio, 12 vanilla, and 7 red apple macaroons, what’s an expression for his total cost?

6. Using the information from the previous question, what are two different expressions for Jeremy’s total cost if Mac lowers the price to $d - 0.50$ dollars per macaroon?

7. Scones & Stuff is having a huge 30% off sale this week. Write two expressions to show your total cost if you buy $s$ scones. What does each expression tell us about the situation?

8. If Aidan buys 5 guinea pigs at 20% off and each pig costs $g$ dollars, what’s an expression that shows his total cost?

9. Are the three expressions $12x - 0.6(x - 24)$, $-36 - (2x - 21.6) + 13.4x$, and $11.4x - 14.4$ all equivalent?

10. Doug’s Dungarees has a 5% off sale on jeans this weekend. Caitlin buys 20 pairs at $j$ dollars apiece. Is this the same discount as buying 19 pairs and getting one extra pair for free?