§1 Sunday, 07/12/20 Lesson Printable

§1.1 Multiplying by 101 Problems

1. $1234 \times 101 = $ _____

2. $10.1 \times 234 = $ _____

3. $369 \times 101 = $ _____

4. $34845 \div 101 = $ _____

5. $22422 \div 101 = $ _____

6. $202 \times 123 = $ _____

7. If 6 balls cost \$6.06, then 15 balls cost: \$ _____

8. **$404 \times 1111 = $** _____

9. (*) $(48 + 53) \times 151 = $ _____

10. (*) $8888 \times 62.5\% \times \frac{5}{11} = $ _____

§1.2 Equation Problems

1. Find $32^2 + 2 \cdot 32 \cdot 68 + 68^2$.

2. Find $2^3 - 3 \cdot 2^2 \cdot 8 + 3 \cdot 2 \cdot 8^2 - 8^3$.

3. Find the slope of the line that goes through $(5, 7)$ and $(6, 8)$.

4. Find the line with a slope of 3 and y-intercept of -2.

5. Find the equation of the line going through $(2, 3)$ and $(7, 13)$.

6. Find the slope of the line with a y-intercept of 3 and a x-intercept of 4.

7. At what point do the lines $2x + 9y = 7$ and $x = 32 - 4.5y$ intersect?

8. Find the intersection of the lines $y = ax + b$ and $y = cx + d$ in terms of a, b, c, d, given that they are not parallel.

9. (Mathcounts) Chris graphs the line $y = 3x + 7$ in the coordinate plane, while Sebastian graphs the line $y = ax + b$, for some numbers a and b. The x-intercept and y-intercept of Sebastian's line are double the x-intercept and y-intercept of Chris's line, respectively. What is the value of the sum $a + b$?