§1 Sunday, 07/19/20 Lesson Printable

§1.1 Multiplying by Any Fraction of 100, 1000, etc. Problems

1. $125 \times 320 =$ _____
2. (*) $8333 \times 24 =$ _____
3. $138 \div 125 =$ _____
4. (*) $57381 \div 128 =$ _____
5. (*) $245632 \div 111 =$ _____
6. (*) $\mathbf{16667} \div \mathbf{8333} \times \mathbf{555} =$ _____
7. (*) $12.75 \times 28300 \div 102 =$ _____
8. $375 \times 24.8 =$ _____
9. (*) $857142 \times 427 =$ _____
10. $.0625 \times .32 =$ _____
11. (*) $16667 \times 369 =$ _____
12. (*) $375.1 \times 83.33 \times 1.595 =$ _____
13. (*) $\mathbf{8333} \div \mathbf{6666} \times \mathbf{4444} =$ _____
14. (*) $\mathbf{8333} \times \mathbf{12}\frac{1}{2}\% \times .\mathbf{12} =$ _____
15. (*) $639 \times 375 \div 28 =$ _____
16. (*) $6250 \div 8333 \times 8888 =$ _____

§1.2 Number Crunchers Problems

1. $\sqrt{\frac{1/(18.2-11.8)}{(43.8)(17.6+75)^2}} =$ _____
2. $\sqrt[3]{4.65 - 1190/998} + 1/\sqrt{0.0205 + 0.0045} =$ _____
3. $\frac{26!+25!}{25!} =$ _____
4. (rad) $\frac{\sin(0.507)-\tan(0.507)}{\sin(0.507)}$ _____
5. $(161 - 132)^{0.304-0.142} =$ _____
6. $12.2^{1.2} =$ _____
7. (deg) $\frac{\sin(30)-\cos(30)}{\cos 45} =$ _____
8. $\sqrt[4]{\frac{1/3+2/3-4/5}{14.3-13.3+1}} =$ _____

§1.3 Solving Quadratics Problems

1. Find the roots of $3x^2 - 2x + 1$ using the Quadratic Formula.
2. Find the roots of $2x^2 - 4x - 6$ using completing the square.
3. Distribute these polynomials:

(a) $(x-9)(x+3) =$_____
(b) $(x-8)(x+1) =$_____
(c) $(x-3)(x+5) =$_____
(d) $(x-6)(x+8) =$_____
(e) $(x-8)(x+1) =$_____
(f) $(x-3)(x+1) =$_____
(g) $(x-3)(x+6) =$_____
(h) $(x-5)(x+3) =$_____
(i) $(x-5)(x+4) =$_____
(j) $(x-6)(x+9) =$_____
(k) $(x-2)(x+5) =$_____
(l) $(x-8)(x+9) =$_____
(m) $(x-7)(x+10) =$_____
(n) $(x-4)(x+8) =$_____
(o) $(x-10)(x+9) =$_____
(p) $(x-7)(x+9) =$_____
(q) $(x-9)(x+4) =$_____
(r) $(x-1)(x+5) =$_____
(s) $(x-8)(x+1) =$_____
(t) $(x-8)(x+5) =$_____

4. Factor these polynomials:

(a) $x^2 - 3x - 4 =$_____
(b) $x^2 + x - 12 =$_____
(c) $x^2 - x - 72 =$_____
(d) $x^2 - x - 90 =$_____
(e) $x^2 - 2x - 8 =$_____
(f) $x^2 + x - 27 =$_____
(g) $x^2 + x - 12 =$_____
(h) $x^2 + x - 63 =$_____
(i) $x^2 + x - 3 =$_____
(j) $x^2 - 9x - 10 =$_____
(k) $x^2 + x - 10 =$_____
(l) $x^2 + x - 24 =$_____
(m) $x^2 + x - 10 =$_____
(n) $x^2 - 9x - 10 =$_____
(o) $x^2 + x - 30 =$_____
(p) $x^2 - x - 72 =$_____
(q) $x^2 - x - 56 =$_____
(r) $x^2 - 6x - 16 =$_____
(s) $x^2 + x - 15 =$_____
(t) $x^2 - x - 56 =$_____

Remark 1. *The last two problems are different from the ones in the notes, to give you more practice! Good luck, and do as many as you can!*