

Cumulative Review

Name: _____

Solve each equation for x .

1. $3x + 1 = 4x - 2$

$x =$ _____

2. $5(x - 6) - 2 = 2x - 5$

$x =$ _____

REMEMBER Apply the distributive property before you isolate the variable.

3. $7x + 12 = 2(x + 6)$

$x =$ _____

4. $3(x - 4) + 6 = 5(x - 1) + 1$

$x =$ _____

Convert the repeating decimal to a fraction.

5. $0.\overline{6}$

6. $1.\overline{1}$

7. $4.\overline{4}$

Complete each sentence.

8. -11.3 is rational because _____

9. $\sqrt{19}$ is irrational because _____

10. $0.08\overline{3}$ is rational because _____

11. $2.1371938\dots$ is irrational because _____

Evaluate each expression. Leave your answer in exponential form.

12. $3^4 \times 3^2$

13. $9^7 \times 9^3$

14. $6^3 \times 6^3$

REMEMBER You can multiply exponential expressions with like bases by adding the exponents.

15. $5^5 \times 5^4$

16. $1^{11} \times 1^{-9}$

17. $x^3 \times x^{-6}$

18. $\frac{4^9}{4^7}$

19. $\frac{2^{-10}}{2^4}$

20. $\frac{z^{20}}{z^{10}}$