Pre-Calculus Name: _____
Pre-Requisites Review

Solve the quadratic equation by factoring or the quadratic formula. Round your answers to the nearest hundredth, if necessary.

1. $x^2 - 7x - 18 = 0$

2. $10x^2 + 89x - 9 = 0$

3. $9x^2 = 5x + 10$

4. $8x^2 - 4x = 18$

Solve the equation using logarithms. Round your answers to the nearest hundredth, if necessary.

5. $3^r = 17$

6. $5 \bullet 18^x = 26$

Evaluate the expression.

7. $\sqrt[3]{27}$

8. $-\sqrt[4]{256}$

Simplify the expression.

9. $(3x^4)^3$

10. $\left(\dfrac{3x^{-5}}{5y^{-2}}\right)^{-3}$

11. $(5x^4)^3 \bullet (2x^6)^5$

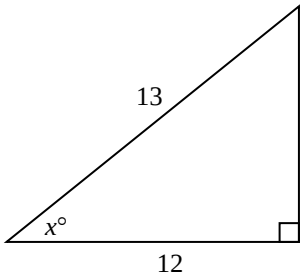
Expand the binomials.

12. $(x + 3)^2$

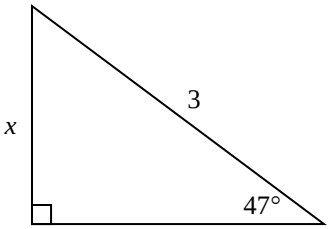
13. $(x - 2)^3$

Use SOH CAH TOA to find the missing side length or angle. Round angle measures to the nearest degree and side lengths to the nearest tenth.

14.



15.



Simplify the expression.

16. $\frac{4n-4}{6n-20}$

17. $\frac{b^2+3b-28}{b^2-49}$

18. $\frac{x^3-x^2-42x}{2x^2-20x+42}$

<u>Prerequisites Practice for Homework:</u>

Solve the quadratic equation by factoring or the quadratic formula. Round your answers to the nearest hundredth, if necessary.

1. $9x^2 - 11 = 6x$

2. $n^2 - 10n + 22 = -2$

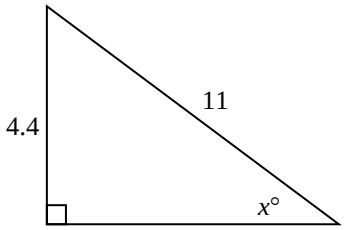
3. $3r^2 - 16r - 7 = 5$

4. Solve using logarithms: $16^r = 67$

5. Simplify the expression: $(2v)^2 \bullet 2v^2$

6. Expand: $(2x + y)^2$

7. Find the value of x. Round to the nearest tenth.



8. Simplify: $\frac{x^2+2x-80}{2x^3-24x^2+64x}$