

Name:

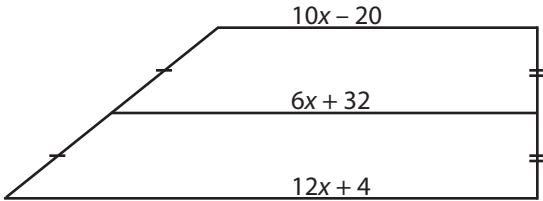
Math 2

Date:

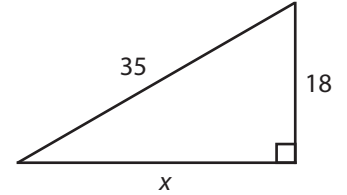
Fall 2021 Practice Final Exam

[B] Show your work carefully in each of the problems below. Only write equations, and make sure each equation has a variable.

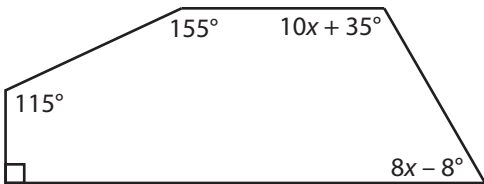
1. Solve for x in the trapezoid below.



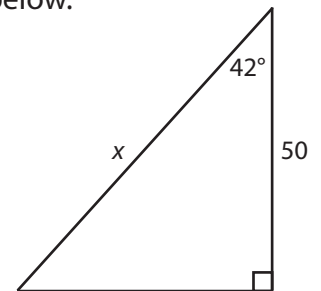
2. Solve for x in the triangle below.



3. Solve for x in the polygon below.



4. Solve for x in the triangle below.



5. Write the equation of the line that passes through the points $(-2, 9)$ and $(4, 5)$.

6. Solve $6(7x - 8)^2 + 4 = 70$.

7. Calculate the distance x between $(5, -9)$ and $(-3, 10)$.

8. Two water jugs are similar in proportion. The small jug is 25 cm tall and holds 4 liters of water. If the large jug is 45 cm tall, how much water does it hold?

[C] Simplify. Do not use negative exponents in your answers.

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

2. $(x^3)^4$

3. $5(2x^3)^4$

4. $2x^{-1}$

5. $\left(\frac{3}{x}\right)^2$

6. $\left(\frac{8x^{-5}}{12x^4}\right)^{-1}$

7. $\frac{x^{-15}}{x^{-5}}$

8. $4x^0$

9. $8x^5 \div 2x$