

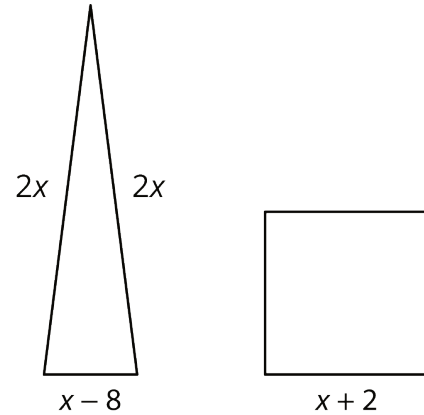
Unit 4 Lesson 14: Strategic Solving

1 Equal Perimeters (Warm up)

Student Task Statement

The triangle and the square have equal perimeters.

1. Find the value of x .
2. What is the perimeter of each of the figures?



2 Predicting Solutions

Student Task Statement

Without solving, identify whether these equations have a solution that is positive, negative, or zero.

1. $\frac{x}{6} = \frac{3x}{4}$

2. $7x = 3.25$

3. $7x = 32.5$

4. $3x + 11 = 11$

5. $9 - 4x = 4$

6. $-8 + 5x = -20$

7. $-\frac{1}{2}(-8 + 5x) = -20$

3 Which Would You Rather Solve?

Student Task Statement

Here are a lot of equations:

A. $-\frac{5}{6}(8 + 5b) = 75 + \frac{5}{3}b$

F. $3(c - 1) + 2(3c + 1) = -(3c + 1)$

B. $-\frac{1}{2}(t + 3) - 10 = -6.5$

G. $\frac{4m-3}{4} = -\frac{9+4m}{8}$

C. $\frac{10-v}{4} = 2(v + 17)$

H. $p - 5(p + 4) = p - (8 - p)$

D. $2(4k + 3) - 13 = 2(18 - k) - 13$

I. $2(2q + 1.5) = 18 - q$

E. $\frac{n}{7} - 12 = 5n + 5$

J. $2r + 49 = -8(-r - 5)$

1. Without solving, identify 3 equations that you think would be least difficult to solve and 3 equations you think would be most difficult to solve. Be prepared to explain your reasoning.
2. Choose 3 equations to solve. At least one should be from your "least difficult" list and one should be from your "most difficult" list.