

Yellow Belt Advancement Problem Solving Discipline

1. Evaluate $\frac{4^2(-x+3) - 11}{-2x^2 - 3x + 5}$ when $x = 2$

2. Evaluate $2(2-x)^2 + 3(x+7) - 2$ when $x = -1$

3. Mr. David and Mr. Dave tried to solve: $-1\frac{2}{5} \cdot 3\frac{4}{7}$

Who was wrong? Why do you think they got it wrong?

Mr. David's Answer	Mr. Dave's Answer
$-3\frac{8}{35}$	-5

4. Simplify anyway you want:

$$(4x-3-7)+(4x-3-7)+(4x-3-7)$$

5. Simplify the expression $(y - 5(y - (5 - y)) - y)$ by writing it without parentheses.

Simplify

6. $(2n - n^3) - (3n^3 + 4n)$

7. $10(-9k + 6) - 10k$

8. $5 \times 2 - (3 + 4^2 - 10)$

Simplify and then evaluate when $x = 5$

9. $-2(3 - 2x) - 3 + 11 - 6x$

Simplify and then evaluate when $a = 3$, $b = -2$

10. $-5a - 6ab - 2(4b + 7)$

Name _____

Class _____

Answers:

1. $5/9$
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.