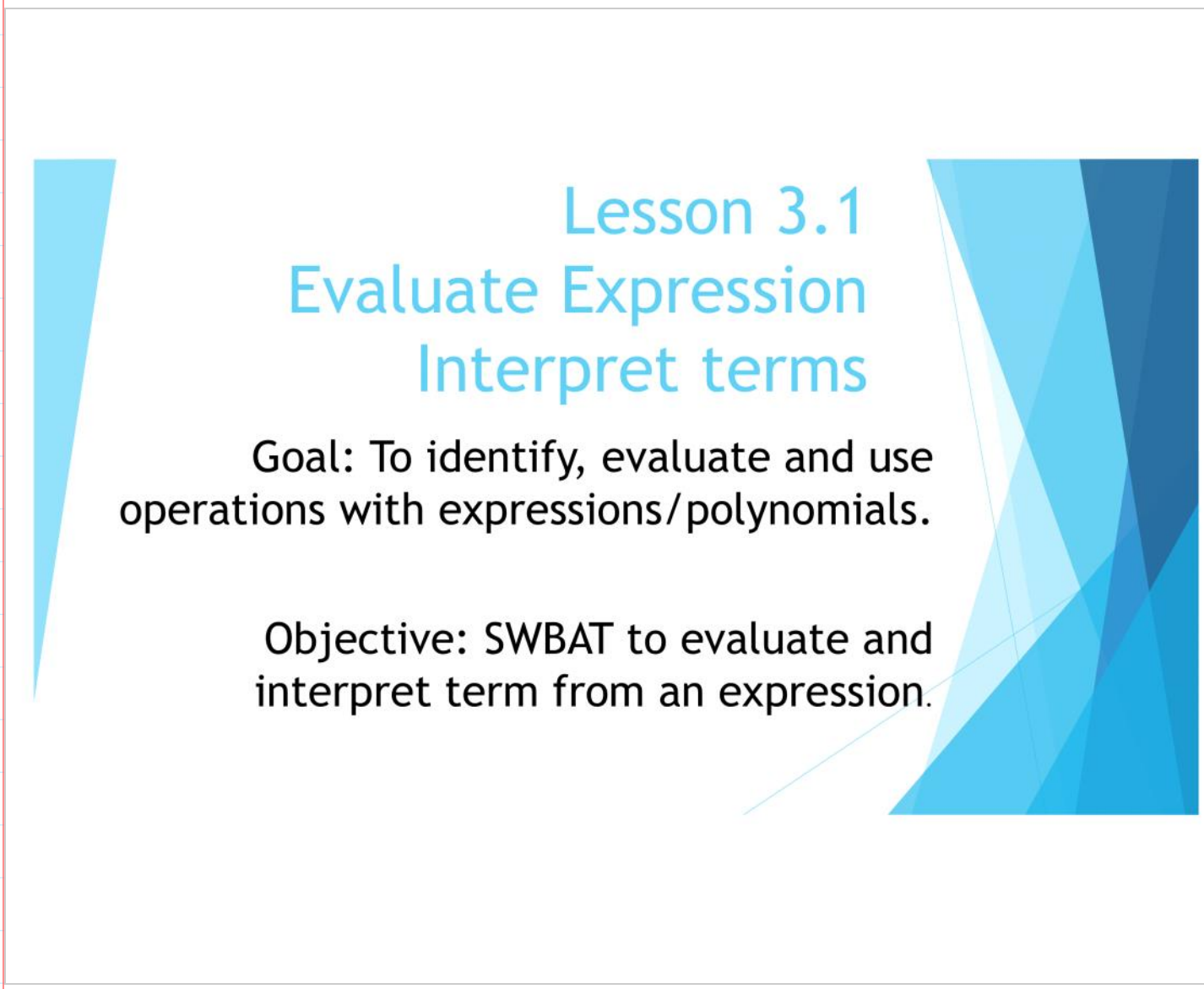
Daily Quest: Timed Pair Share

- Open envelopes and take out strips of paper.
- 45 seconds
  - Think about the "order of operations" and arrange the strips into what you think is the correct order.
  - You may or may not use all the strips.
- With your partner compare how your order is alike and different.

Order of Operations

- P: Parentheses (Grouping Symbols)
- E: Exponents
- M/D or D/M: Multiply/Division or Division/Multiply (Left to Right)
- A/S or S/A: Add/Subtract or Subtract/Add (Left to Right)

Thursday, August 11, 2016 2:14 PM



Thursday, August 11, 2016 2:14 PM

Problem 1:

▶ Evaluate the expression given $x = 2$

$4x + 5$

$4(2)+5$

$8+5$

13

$4(x + 5)$

$4(2+5)$

$4(7)$

28

$4(x + 5)^2$

$4(2+5)^2$

$4(7)^2$

$4(49)$

196

Remeber exponents then multiply.

Thursday, August 11, 2016 2:14 PM

$(-2)^2 = -2 \cdot -2 = 4$

Problem 1a:

▶ Evaluate the expression given $x = -2$ and $y = 1$

$5x^2 + 4y + 1$

$5(-2)^2 + 4(1) + 1$

$5(4) + 4(1) + 1$

$20 + 4 + 1$

25

$-2(-3x + 5)$

$-2(-3(-2) + 5)$

$-2(6 + 5)$

$-2(11)$

-22

Thursday, August 11, 2016 2:14 PM

Problem 1b:

▶ Evaluate the expression given $x = -2$ and $y = 3$

$(y + 4) - 3(x + 1)$

$(3+4) - 3(-2+1)$

$7 - 3(-2+1)$

$7 - 3(-1)$

$7 - -3$

$7 + 3$

10

$(x - 1)(y + 4)^2$

$(-2-1)(3+4)^2$

$-3(7)^2$

$-3(49)$

-147

Thursday, August 11, 2016 2:14 PM

Problem 1c: H

▶ Evaluate the expression given $x = 3$, $y = 4$, $z = 8$

$(3 - (-4)x)^2$

$(3-(-4)(3))^2$

$(3--12)^2$

$(3+12)^2$

15^2

225

$8 + 6x \div 4y - \frac{3z}{y}$

$8+6(3) \div 4(4) - \frac{3(8)}{4}$

$8+18 \div 4(4) - \frac{3(8)}{4}$

$8+4.5(4) - \frac{3(8)}{4}$

$8+18 - \frac{3(8)}{4}$

$8+18 - \frac{24}{4}$

$8+18-6$

$26-6$

20

Thursday, August 11, 2016 2:15 PM

Problem 2:

A company uses two different-sized trucks to deliver sand. The first truck can transport x cubic yards, and the second y cubic yards. The first truck makes S trips to a job site, while the second makes T trips. What quantities do the following expressions represent in terms of the problem's context?

What is does S represent?

What is does T represent?

What does $S + T$ represent?

Thursday, August 11, 2016 2:15 PM

Problem 2a:

A company uses two different-sized trucks to deliver sand. The first truck can transport x cubic yards, and the second y cubic yards. The first truck makes S trips to a job site, while the second makes T trips. What quantities do the following expressions represent in terms of the problem's context?

What is does *x* represent?

What is does *y* represent?

What does *x* + *y* represent?

Thursday, August 11, 2016 2:15 PM

Problem 2a:

A company uses two different-sized trucks to deliver sand. The first truck can transport x cubic yards, and the second y cubic yards. The first truck makes S trips to a job site, while the second makes T trips. What quantities do the following expressions represent in terms of the problem's context?

What is does xS represent?

What is does yT represent?

What does $xS + yT$ represent?

Thursday, August 11, 2016 2:15 PM

Problem 3:

- A publishing company orders black and blue ink in a bulk for its two-color printing press. To keep things simple with its ink supplier, each time it places an order for blue ink, it buys *B* gallons, and each time it places an order for black ink, it buys *K* gallons. Over a one-month period, the company places *m* orders of blue ink and *n* orders of black ink.
- What does m represent?
- What does n represent?
- What does m + n represent?