

Ma 9A – Flashback (week 27)

1. Fill in the t-chart for the rule: $3x + 5 = y$

you pick these numbers

x	y
0	5
1	8
2	11
3	14

$3 \cdot 0 + 5$
 $3 \cdot 1 + 5$
 $3 \cdot 2 + 5$
 $3 \cdot 3 + 5$

2. Jane wants to host a party at the community hall. The hall charges a flat fee of \$150 plus an additional fee of \$5 per person.

Create a table of values to show the costs for the first 5 people.

$150 + 5$ per person

# people	Cost
1	155
2	160
3	165
4	170
5	175

$150 + 5$
 $150 + 5 + 5$
 $150 + 5 + 5 + 5$
 $150 + 5 + 5 + 5 + 5$

4. Simplify: $4 + (3^3 - 5) \cdot 3 \div 11$

B
E
DM
AS

$$4 + (27 - 5) \cdot 3 \div 11$$

$$4 + 22 \cdot 3 \div 11$$

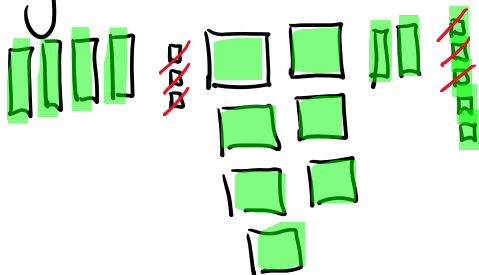
$$4 + 66 \div 11$$

$$4 + 6$$

$$(10)$$

5. Simplify: $4x - 3 + 7x^2 + 2x + 5$

Visually:



$$7x^2 + 6x + 2$$

or Algebraically:

$$\begin{array}{r}
 7x^2 \quad +4x \quad -3 \\
 \quad \quad +2x \quad +5 \\
 \hline
 7x^2 \quad +6x \quad +2
 \end{array}$$

6. Draw algebra tile model for the opposite of $-3x^2 + 2x - 1$

flipped over



7. Solve and verify: $8x - 7 = 5x + 2$

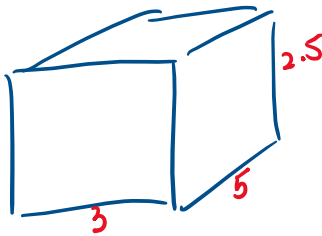
legal moves

$$\begin{array}{r} 8x - 7 = 5x + 2 \\ -5x \quad -5x \\ \hline 3x - 7 = 2 \\ +7 \quad +7 \\ \hline 3x = 9 \\ \frac{3x}{3} = \frac{9}{3} \\ x = 3 \end{array}$$

check:

$$\begin{array}{l} 8x - 7 = 5x + 2 \\ 8 \cdot 3 - 7 = 5 \cdot 3 + 2 \\ 24 - 7 = 15 + 2 \\ 17 = 17 \\ \checkmark \\ \underline{\text{true!}} \end{array}$$

8. Mandy wants to wallpaper all four walls in her room. The dimensions of the floor are 5 m by 3 m. The walls are 2.5 m high. What shape are the walls? What is the area of each of the walls? Total surface area?



side walls

$$A = 5 \cdot 2.5$$

$$A = 12.5 \text{ m}^2$$

there are 2 of the same size $\therefore 25 \text{ m}^2$

end walls

$$A = 3 \cdot 2.5$$

$$A = 7.5 \text{ m}^2$$

there are 2 of the same $\therefore 15 \text{ m}^2$

9. Simplify: $\frac{x^4 \cdot x^5}{x^2}$

* wallpaper only walls
 → walls are rectangles
 mult. law → add exp.
 $\frac{x^4 \cdot x^5}{x^2} \rightarrow \frac{x^9}{x^2} \rightarrow x^7$

∴ total surface area = $25 + 15 = 50 \text{ m}^2$
 division
 subtract exp.

10. Identify the coordinates for each:

$$A = (-8, 9)$$

$$B = (-3, 2)$$

$$C = (5, 0)$$

$$D = (9, 8)$$

$$E = (0, 7)$$

$$F = (-6, -6)$$

$$G = (4, -3)$$

