

Station 1

I can find the degree and classify polynomials (7.1)

*For the following polynomials, put them into standard form, identify the leading coefficient, degree, and classify.

1) $\boxed{-8t^4}$

l.c.: 8 monomial
d: 4

2) $a + 2a^2 + 3a^3 + 4a^4$ $\boxed{4a^4 + 3a^3 + 2a^2 + a}$

l.c.: 4 polynomial
d: 4

3) $.56b^2 + .6b^3$
 $\boxed{.6b^3 + .56b^2}$

l.c.: .6 binomial
d: 3

4) $2x + x^2$
 $\boxed{1x^2 + 2x}$

l.c.: 1 binomial
d: 2

Station 2

I can add polynomials. (7.1)

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

$$\begin{array}{r} \cancel{x^3} + \cancel{x^2} + x \\ + (x^3 + 3x^2 - 1) \\ \hline x^3 + 4x^2 + x - 1 \end{array}$$

2) $(t^2 - 9) + (t^3 + 1)$

$$t^2 - 9 + t^3 + 1 = \boxed{t^3 + t^2 - 8}$$

I can subtract polynomials. (7.1)

1) $(y^3 - 5y + 3) - (y^2 - 10)$

$$\begin{array}{r} y^3 - 5y + 3 \\ + (-y^2 + 10) \\ \hline y^3 - y^2 - 5y + 13 \end{array}$$

2) $(a - 8) - (4a - 7)$

$$a - 8 - 4a + 7$$

$$\boxed{-3a - 1}$$

Station 3

I can multiply binomials using any method.

(7.2)

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

	x	4
x	x ²	4x
3	3x	12

 $x^2+7x+12$

2) $(2x+5)(4x-2)$

$2x(4x-2) + 5(4x-2)$

$8x^2 - 4x + 20x - 10 = \boxed{8x^2 + 16x - 10}$

3) $(x+5)^2 = (x+5)(x+5)$

	x	5
x	x ²	5x
5	5x	25

 $x^2+10x+25$

4) $(x+4)(x-4) = (x)^2 - (4)^2 = \boxed{x^2-16}$

$x(x-4) + 4(x-4)$

$x^2 - 4x + 4x - 16$

x^2-16

↑
sum of diff. pattern

↑
checked by multiplying

Station 4

I can multiply binomials using FOIL

method only. (7.2/7.3)

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

$6x^2 - 3x + 8x - 4 = \boxed{6x^2 + 5x - 4}$

2) $(a+1)(a+9)$

$a^2 + 9a + a + 9 = \boxed{a^2 + 10a + 9}$

3) $(c+3)^2 = (c+3)(c+3)$

$c^2 + 3c + 3c + 9 = \boxed{c^2 + 6c + 9}$

4) $(x+3)(x-3) = (x)^2 - (3)^2 = \boxed{x^2-9}$

$x^2 - 3x + 3x - 9 = \boxed{x^2-9}$

Station 5

I can multiply a binomial and a trinomial. (7.2)

1) $(3x + 4)(2x^2 + x + 6)$

	$2x^2$	x	6
$3x$	$6x^3$	$3x^2$	$18x$
4	$8x^2$	$4x$	24

$$6x^3 + 11x^2 + 22x + 24$$

2) $(4x^2 + 5)(3x^2 + 4x + 1)$

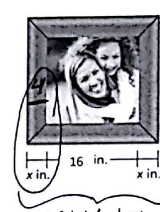
$$4x^2(3x^2 + 4x + 1) + 5(3x^2 + 4x + 1)$$

$$12x^4 + 16x^3 + 4x^2 + 15x^2 + 20x + 5$$

$$12x^4 + 16x^3 + 19x^2 + 20x + 5$$

Station 6

I can solve real-life problems. (7.1-7.3)



$$A = l \cdot w$$

$$= (2x + 16)(2x + 20)$$

$$4x^2 + 40x + 32x + 320$$

$$4x^2 + 72x + 320$$

- a) Write a polynomial that represents the combined area of the photo and the frame.

$$4x^2 + 72x + 320 \text{ in}^2$$

- b) Find the combined area of the photo and the frame when the width of the frame is 4 inches.

$$4(4)^2 + 72(4) + 320$$

$$672 \text{ in}^2$$