NAME _____ QUARTER 1

GRADE & SECTION _____ DATE _____

Activity: Synthetic Division

Divide the polynomials using synthetic division. Complete the solution and quotient by filling in the boxes. The first item is done for you.

1) $(m^3 - 36m - 3) \div (m - 6)$

	m^3	m^2	m	c
6	1	0	−36	−3
		6	36	0
	1	6	0	-3
	m^2	m	c	r

Answer: $m^2 + 6m - \frac{3}{m-6}$

2) $(4b^3 - 4b^2 - 15b - 16) \div (b + 1)$

	b^3	b^2	b	c
−1	4	−4	−15	−16
		−4	8	7
	b^2	b	c	r

Answer: $\square b^2 \square\square b \square\square\square \frac{\square}{b+1}$

3) $(k^5 + 14k^4 + 35k^3 - 41k^2 + 36k - 46) \div (k + 5)$

	k^5	k^4	k^3	k^2	k	c
−5	1	14	35	−41	36	−46
		−5	−45	50	−45	45
	k^4	k^3	k^2	k	c	r

Answer: $k^4 \square\square k^3 \square\square k^2 \square\square k \square\square\square \frac{\square}{k+5}$

4) $(-2y^2 - 9y - 7) \div (y + 1)$

	y^2	y	c
−1			
		2	7
	y	c	r

Answer: $\square\square y \square\square$

5) $(a^4 + 12a^3 + 32a^2) \div (a + 8)$

	a^4	a^3	a^2	a	c
−8	1	12	32	0	0
	a^3	a^2	a	c	r

Answer: $a^3 \square\square a^2$

How many attempts? ___.
How well did you do?

 Need help!  Just OK!  Splendid

I LEARNED THAT...

_____

_____

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LIVEWORKSHEETS