Synthetic Division Worksheet

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Use Synthetic Division to simplify the following expressions

1. $(-7p^4 - 66p^3 - 89p^2 - 70p + 19) \div (p + 8) =$

-8	-7	-66	-89	-70	19
		56	80	72	-16
	-7	-10	-9	2	3

$-7p^3 - 10p^2 - 9p + 2 + \frac{3}{p + 8}$

2. $(6c^4 - 15c^3 + 9c^2 + c - 18) \div (c - 2) =$

2	6	-15	9	1	-18
		12	-6	6	14
	6	-3	3	7	-4

$6c^3 - 3c^2 + 3c + 7 - \frac{4}{c - 2}$

3. $(6m^4 - 43m^3 + m^2 + 39m + 25) \div (m - 7) =$

7	6	-43	1	39	25
		42	-7	-42	-21
	6	-1	-6	-3	4

$6m^3 - m^2 - 6m - 3 + \frac{4}{m - 7}$

4. $(-8v^4 + 54v^3 + 17v^2 - 26v + 32) \div (v - 7) =$

7	-8	54	17	-26	32
		-56	-14	21	-35
	-8	-2	3	-5	-3

$-8v^3 - 2v^2 + 3v - 5 - \frac{3}{v - 7}$