



Factor Theorem - Find the Remainder Given a Binomial Divisor

1 Find the remainder when $f(x)$ is divided by $(x + 2)$.

$$f(x) = x^4 + x^3 - 7x^2 - x + 6$$

A	B	C	D
6	12	-12	0

2 Find the remainder when $f(x)$ is divided by $(x + 2)$.

$$f(x) = x^3 - 3x^2 - 4x + 12$$

A	B	C
0	12	-2

3 $f(x) = x^4 + 3x^3 - 7x^2 - 27x - 18$

Find the remainder when $f(x)$ is divided by $(x + 1)$.

A	B	C	D
-48	-18	-1	0

4 Find the remainder when $f(x)$ is divided by $(x - 1)$.

$$f(x) = x^3 + 3x^2 - 9x - 27$$

A	B	C	D
-27	-16	-32	32

5 Find the remainder when $f(x)$ is divided by $(x - 0)$.

$$f(x) = x^4 - 3x^3 - 2x^2 + 12x - 8$$

A	B
8	-8

6 Find the remainder when $f(x)$ is divided by $(x + 2)$.

$$f(x) = x^4 + 5x^3 + 7x^2 + 3x$$

A	B	C	D
-2	90	2	0

7 Find the remainder when $f(x)$ is divided by $(x - 2)$.

$$f(x) = x^3 + 3x^2 - 4x - 12$$

A	B	C
2	-12	0

8 Find the remainder when $f(x)$ is divided by $(x + 3)$.

$$f(x) = x^3 + x^2 - 9x - 9$$

A	B	C
-9	-3	0