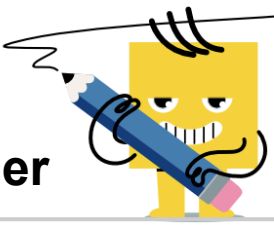
Name

Factor Theorem - Find a Coefficient Given a Binomial Divisor and Remainder



1 When f(x) is divided by (x + 1) the remainder is 2. Find the value of a.

$$f(x) = x^3 + 3x^2 + ax$$

A	B	C	D
1	-1	0	2

2 $f(x) = x^5 - 4x^4 + ax^3 + 14x^2 - 17x + 6$

When f(x) is divided by (x - 1) the remainder is 0. Find the value of a.

A	B	C	D
0	1	-1	2

3 When f(x) is divided by (x - 2) the remainder is 32. Find the value of a.

$$f(x) = x^3 + 4x^2 + 4x + a$$

A	B	C	D
2	1	0	-1

4 When f(x) is divided by (x - 3) the remainder is 18. Find the value of a.

$$f(x) = x^3 + x^2 + ax$$

A	B	C	D
-6	-7	-5	6

5 When f(x) is divided by (x + 1) the remainder is -4. Find the value of a.

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

A	B	C	D
0	1	-1	2

6 When f(x) is divided by (x + 2) the remainder is 0. Find the value of a.

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

A	B	C	D
-13	12	-12	-11

7 When f(x) is divided by (x - 1) the remainder is 0. Find the value of a.

$$f(x) = x^3 + ax^2 - x + 1$$

A	B	C	D
0	-2	1	-1

8 When f(x) is divided by (x - 1) the remainder is -8. Find the value of a.

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

A	B	C	D
1	2	0	-1