

# Divide By Synthetic Division

1  $(4x^6 - 3x^4 + x^2 + 5) \div (x - 2)$

2  $(2x^3 - 4x^2 + 5x + 12) \div (x - 5)$

3  $(3x^3 + 2x^2 - x + 4) \div (x - 3)$

4  $(2x^3 - 4x^2 + 8x + 3) \div (x + 3)$

5  $(7x^3 + 5x^2 + 6x + 2) \div (x - 4)$

6  $(6x^2 + 9x + 5) \div (x - 3)$

7  $(x^4 - 16x^2 - 40x - 25) \div (x - 5)$

8  $(5x^4 + 2x^2 - 15x + 10) \div (x + 2)$

# Divide By Synthetic Division

## Answers

1  $(4x^6 - 3x^4 + x^2 + 5) \div (x - 2)$

2  $(2x^3 - 4x^2 + 5x + 12) \div (x - 5)$

$$4x^5 + 8x^4 + 13x^3 + 26x^2 + 53x + 106 + \frac{217}{x - 2}$$


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$$2x^2 + 6x + 35 + \frac{187}{x - 5}$$


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3  $(3x^3 + 2x^2 - x + 4) \div (x - 3)$

4  $(2x^3 - 4x^2 + 8x + 3) \div (x + 3)$

$$3x^2 + 11x + 32 + \frac{102}{x - 3}$$


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$$2x^2 - 10x + 38 + \frac{-111}{x + 3}$$


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5  $(7x^3 + 5x^2 + 6x + 2) \div (x - 4)$

6  $(6x^2 + 9x + 5) \div (x - 3)$

$$7x^2 + 33x + 138 + \frac{554}{x - 4}$$


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$$6x + 27 + \frac{86}{x - 3}$$


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7  $(x^4 - 16x^2 - 40x - 25) \div (x - 5)$

8  $(5x^4 + 2x^2 - 15x + 10) \div (x + 2)$

$$x^3 + 5x^2 + 9x + 5$$


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$$5x^3 - 10x^2 + 22x - 59 + \frac{128}{x + 2}$$


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