

A.APR.D.6: Division of Polynomials

- 1 When $3x^2 - 6x$ is divided by $3x$, the result is
 - 1) $-2x$
 - 2) $2x$
 - 3) $x + 2$
 - 4) $x - 2$

- 2 What is $6x^3 + 4x^2 + 2x$ divided by $2x$?
 - 1) $3x^2 + 2x$
 - 2) $3x^2 + 2x + 1$
 - 3) $4x^2 + 2x$
 - 4) $4x^2 + 2x + 1$

- 3 When $16x^3 - 12x^2 + 4x$ is divided by $4x$, the quotient is
 - 1) $12x^2 - 8x$
 - 2) $12x^2 - 8x + 1$
 - 3) $4x^2 - 3x$
 - 4) $4x^2 - 3x + 1$

- 4 When $6y^6 - 18y^3 - 12y^2$ is divided by $-3y^2$, the quotient is
 - 1) $2y^4 - 6y^2 - 4y$
 - 2) $3y^4 + 6y + 4$
 - 3) $-2y^4 + 6y + 4$
 - 4) $-2y^3 - 6y^2 - 4y$

- 5 What is $24x^2y^6 - 16x^6y^2 + 4xy^2$ divided by $4xy^2$?
 - 1) $6xy^4 - 4x^5$
 - 2) $6xy^4 - 4x^5 + 1$
 - 3) $6x^2y^3 - 4x^6y$
 - 4) $6x^2y^3 - 4x^6y + 1$

- 6 The expression $(50x^3 - 60x^2 + 10x) \div 10x$ is equivalent to
 - 1) $5x^2 - 6x + 1$
 - 2) $5x^3 - 6x^2 + x$
 - 3) $5x^2 - 60x^2 + 10x$
 - 4) $5x^2 - 6x$

- 7 Which polynomial is the quotient of $\frac{6x^3 + 9x^2 + 3x}{3x}$?
 - 1) $2x^2 + 3x + 1$
 - 2) $2x^2 + 3x$
 - 3) $2x + 3$
 - 4) $6x^2 + 9x$

- 8 The quotient of $\frac{8x^5 - 2x^4 + 4x^3 - 6x^2}{2x^2}$ is
 - 1) $16x^7 - 4x^6 + 8x^5 - 12x^4$
 - 2) $4x^7 - x^6 + 2x^5 - 3x^4$
 - 3) $4x^3 - x^2 + 2x - 3x$
 - 4) $4x^3 - x^2 + 2x - 3$

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Answer Section

- 1 ANS: 4 REF: 060506a
2 ANS: 2 REF: 080817a
3 ANS: 4 REF: 011412ia
4 ANS: 3 REF: spring9807a
5 ANS: 2 REF: 011316ia
6 ANS: 1 REF: 010724a
7 ANS: 1

$$\frac{3x(2x^2 + 3x + 1)}{3x} = 2x^2 + 3x + 1$$

- REF: 060102a
8 ANS: 4 REF: 061203ia