

**Homework 26.1**

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**Divide.**

1)  $(27v^5 + 5v^4 + 9v^3) \div 9v$

2)  $(4n^8 + 2n^7 + 4n^6) \div 8n^2$

3)  $(b^3 + 30b^2 + 5b) \div 10b^2$

4)  $(9x^4 + 3x^3 + 36x^2) \div 9x^3$

**Factor the greatest common factor out of each expression.**

5)  $-24y^6 - 80y^7 + 72y^6x^3$

6)  $-8x^2y^4 + 32x^3y^3 - 32x^2y^2$

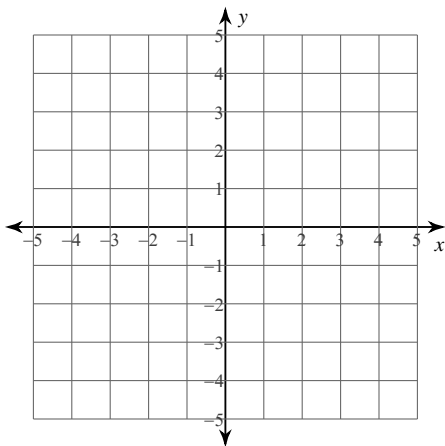
7)  $24m^4 + 36mn - 42m$

8)  $-10x^2y^7 + 100x^2y^4 - 90xy^4$

**Solve each system by graphing.**

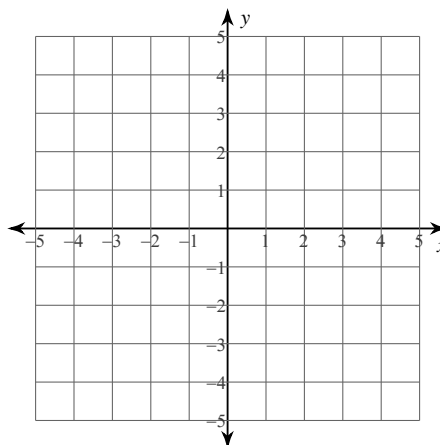
9)  $y = \frac{2}{3}x - 2$

$y = \frac{7}{3}x + 3$



10)  $y = \frac{1}{2}x + 2$

$y = -x - 1$



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- 11) Jessica had some candy to give to her five children. She first took six pieces for herself and then evenly divided the rest among her children. Each child received two pieces. With how many pieces did she start?
- 12) Mofor had \$23 to spend on four advocados. After buying them he had \$7. How much did each avocado cost?

### Answers to Homework 26.1

1)  $3v^4 + \frac{5v^3}{9} + v^2$

2)  $\frac{n^6}{2} + \frac{n^5}{4} + \frac{n^4}{2}$

3)  $\frac{b}{10} + 3 + \frac{1}{2b}$

4)  $x + \frac{1}{3} + \frac{4}{x}$

5)  $8y^6(-3 - 10y + 9x^3)$

6)  $8x^2y^2(-y^2 + 4xy - 4)$

7)  $6m(4m^3 + 6n - 7)$

8)  $10xy^4(-xy^3 + 10x - 9)$

9)  $(-3, -4)$

10)  $(-2, 1)$

11) 16

12) \$4