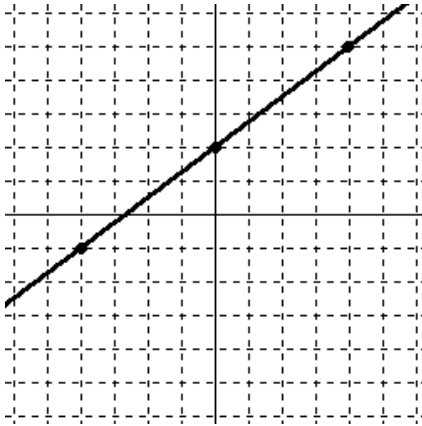
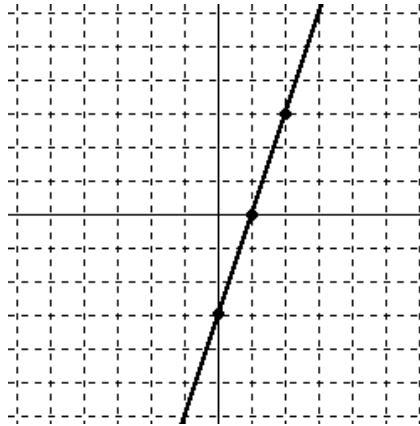


This is a take-home test, so you may use your book, notes, etc. Please make sure that you show your work as much as possible. This test is due back at the beginning of class on Monday June 4, 2007. Late tests will not be accepted!

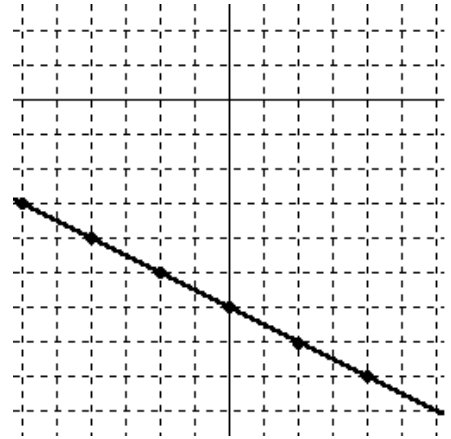
Find the slopes of the lines in the graphs below.



1) slope = _____



2) slope = _____



3) slope = _____

Find the slope of the lines below.

4) $y = 2x - 7$

5) $2x + 3y = 6$

6) $4x - 5y = 20$

7) $y = \frac{1}{2}x + 4$

Find the slope of the lines passing between each pair of points.

8) (2, 4) and (3, 6)

9) (-5, 3) and (-8, 7)

10) (-1, 2) and (1, -4)

Write each problem below in simplest exponential notation.

11) $x \cdot x \cdot x \cdot x \cdot x$

12) $p \cdot p \cdot p \cdot r \cdot r \cdot r \cdot r$

13) $y \cdot y \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y$

Write the following out as repeated multiplication.

14) x^7

15) x^2y^3

16) a^4b^3c

Simplify. Write using only positive exponents.

17) x^{-4}

18) $x^3 \cdot x^5$

19) $\frac{y^2}{y^4}$

20) $y^7 \cdot y^{-5}$

21) $\frac{y^6}{y^{-9}}$

22) $(3x)^3$

23) $\left(\frac{4a^3}{b^5}\right)^2$

24) $(x^{-6}y^8)^4$

25) $\left(\frac{x^{-5}}{y^7}\right)^3$

Combine like terms where possible.

26) $2x^2 + 5x^2 - 8x^2 - 3x^2$

27) $4x^2 - 9x^3 + 6x^3 + x^2$

28) $5y^4 - 3y^3 + 2y^4 - 6y^2$

29) $2xy^3 + 4x^3y - 2x^3y + 5xy^3$

30) $xy + 11xy^2 - 8xy - 15xy^2$

Evaluate by plugging in the given values for the variables and simplifying.

31) x^3 , where $x = 4$

32) $2x^2 + 1$, where $x = -3$

33) $x^2 - 4x + 7$, where $x = 2$

34) $3x^2y$, where $x = 3$ and $y = -5$

35) $2x - 5y$, where $x = -7$ and $y = -1$