

ALGEBRA

Practice Exercises

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WALCH
PUBLISHER
Portland, Maine

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17. Finding the Least Common Multiples

1. 102
2. 72
3. 84
4. 72
5. 1,008
6. 42
7. 2,304
8. 7,425
9. 896
10. 676
11. 588
12. 882
13. 3,328
14. 61,440
15. 108
16. 2,730
17. 2,604
18. 6,480
19. Answers will vary: 9, 45, 99, 495
20. Answers will vary: 99, 198, 693, 1,386

18. Finding Common Factors

1. $2X$
2. $7BC$
3. DE
4. $9XY^2Z$
5. $6EF^2$
6. 3
7. $25XM$
8. 1 (No common factors)
9. $9MP$
10. $13UVM$
11. $7T^2C(4EC^2 - 5H^4)$
12. $2XY(18X - 7Y^2 - 12)$
13. $5XD^2F(15X^3 + 45XD^3F^3 - 16DF)$
14. $21J^3K^2L(21JK^3 - 3 + 5K^5L^2)$
15. $64G^4H^5(4G^3 + P^2G^2 - 16H^2D^{10})$
16. $G(504R^4GP - 18P^2H^5 + 77GHR^6)$
17. $15SCT^2(24S^4 + 9TS - 4C^5T^3)$

9.

X	Y
0	-2
1	-2
-1	-2

10.

X	Y
0	2
6	0
9	-1

36. The Slope of a Graph

- Slope = $1/3$
- Slope = $-4/4$ or $-1/1$
- Slope = $-1/-3$ or $1/3$
- Slope = $-1/-2$ or $1/2$
- Slope = $0/2$ or 0 or horizontal
- Slope = $-2/1$
- Slope = $1/4$
- Slope = $2/2$ or $1/1$
- Slope = $0/4$ or 0 or horizontal
- Slope = $-2/-1$ or $2/1$
- Slope = $1/3$
- Slope = $1/0$ or undefined or vertical

37. The Slope/Y-Intercept Method

- Slope = $2/1$
- Slope = $-1/2$
- Slope = $3/1$

4. Slope = $-1/2$

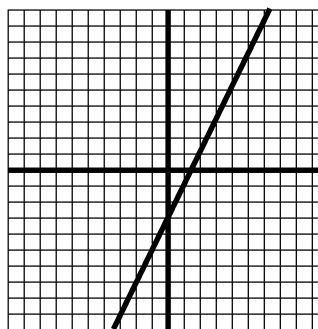
5. y – intercept is -3

6. y – intercept is 3

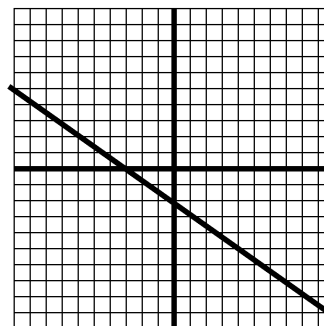
7. y – intercept is 2.5

8. y – intercept is -1.75

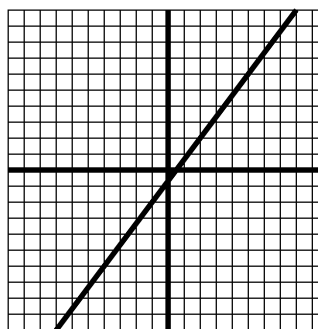
9.



10.



11.



18. Finding Common Factors

Find the common factors of the following:

1. $34 XY$ and $24 XZ$ _____
2. $35 ABC$ and $28 BCD$ _____
3. $21 D^2E$ and $13 DE^2$ _____
4. $54XY^2Z^3$ and $9 X^2Y^2Z$ _____
5. $144EF^4$ and $42E^3F^2$ _____
6. $6 R^3S^5$ and $18R^2X^3$ and $21S^3X^4$ _____
7. $25XM$ and $125X^3M^6$ and $75X^2M^9$ _____
8. $14 CV^2$ and $35C^3S^5$ and $10VS^3$ _____
9. $45MP^3$ and $81M^6P^3$ and $27PM^3$ _____
10. $169UV^2M$ and $65V^2UM$ and $91MU^2V$ _____

Write the following problems in fully factored form:

11. $28 T^2EC^3 - 35 CT^2H^4$ _____
12. $36YX^2 - 14XY^3 - 24XY$ _____
13. $75 X^4D^2F + 225X^2D^5F^4 - 80XD^3F^2$ _____
14. $441J^4K^5L - 63J^2LK^2J + 105K^7L^3J^3$ _____
15. $256G^7H^5 + 64 P^2G^6H^5 - 1024G^4H^7D^{10}$ _____
16. $504R^4G^2P - 18 P^2GH^5 + 77G^2HR^6$ _____
17. $360 S^5CT^2 + 135 T^3S^2C - 60 C^6T^5S$ _____

37. The Slope/Y-Intercept Method

Put the following equations into slope/Y-intercept form to determine the slope of their graphs:

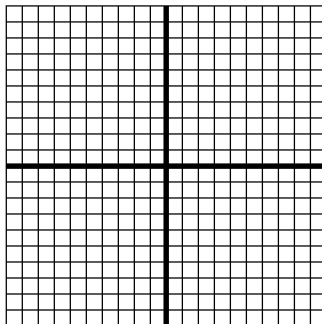
1. $Y - 4 = 2X$ _____ 3. $3X - Y = 3$ _____
 2. $X + 2Y = 5$ _____ 4. $2X = 5 - 4Y$ _____

Put the following equations into slope/Y-intercept form to determine their Y-intercepts:

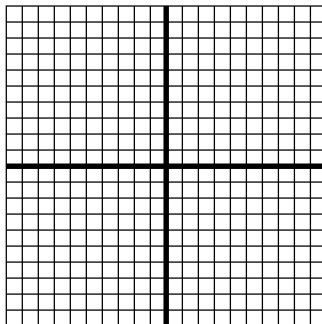
5. $6 = 3X - 2Y$ _____ 7. $3X + 2Y = 5$ _____
 6. $5X = 12 - 4Y$ _____ 8. $X - 4Y = 7$ _____

Sketch the graphs of the following equations by the slope/Y-intercept method:

9. $Y = 2X - 3$



10. $3Y + 2X = -6$



11. $4X - 3Y = 2$

