

Honors Pre-Calculus

Summer Work – Answers

FOIL Practice

1. $x^3 - 7x^2 + 3x - 7$
2. $x^3 - x^2 - 17x + 20$
3. $-2x^4 + 6x^3 + x - 3$
4. $-5x^2 + \frac{17}{2}x - 3$
5. $-x^2 + x\sqrt{2} + 4$

Factoring Practice

1. $(y - 10)(y - 2)$
2. $(4x - 5y)(4x + 5y)$
3. $(3z + 2)(4z - 3)$
4. $3p(3p + 5)(2p - 9)$
5. $6ab^2(2a + 7b)(3a - 5b)$

Rationalizing Radicals

1. $\frac{3\sqrt{6}}{2}$
2. $\frac{\sqrt{5}}{5}$
3. $2\sqrt{2}$
4. $\frac{\sqrt{10}}{2}$
5. $y\sqrt{x}$

Solving Systems

1. $(7, -10)$
2. $(8, -3)$
3. $(-4, 0)$
4. No Solution / Parallel Lines

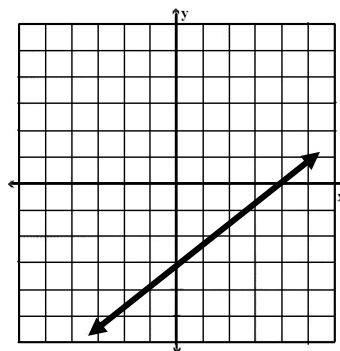
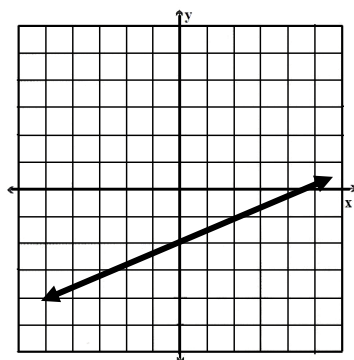
Simplifying Square Roots

1. $2\sqrt{31}$
2. $\sqrt{215}$
3. $2x\sqrt{5}$
4. 24
5. $-3\sqrt{2} + 3\sqrt{6}$

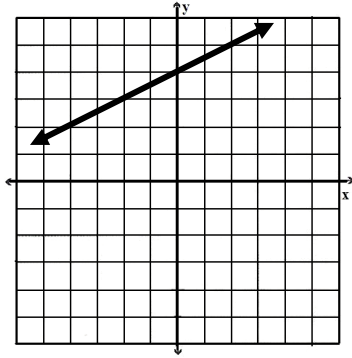
Linear Equations

1. $3y = 5$
2. $2x - 3y = -1$
3. already in standard form
4. $x - 7y = -34$
5. $y = -\frac{1}{2}x - 2$
6. $y = 4x$
7. $y = -\frac{2}{5}x + 2$

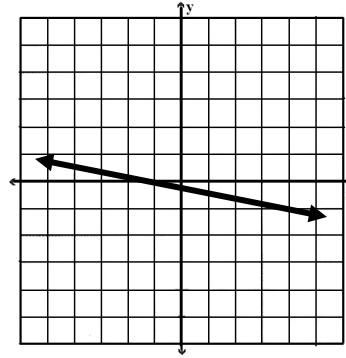
8. $Y = \frac{3}{4}x - 6$



9. $y = 4 + \frac{1}{2}x$



10. $y = -\frac{1}{6}x - \frac{1}{3}$



Parallel and Perpendicular Lines

11. $y = \frac{1}{3}x + 8$

12. $y = -\frac{3}{2}x + 12$

Fractions

- $\frac{9}{4}$
- $\frac{25x}{24}$
- 8
- $\frac{37}{30}$
- t^2

Solving Linear Equations

- $x = 1$
- $x = \frac{5}{11}$
- $x = my + p - t$
- $x = 5 + 6y$
- $x = \frac{5}{2}$

Manipulating Radicals

- b
- $5ab^3c\sqrt{2ab}$
- $2z\sqrt[3]{b^2}$
- $4a^2b^3$
- $\frac{b\sqrt{b}}{a^2}$
- $\sqrt[12]{a^6b^4c^3}$

Exponent Rules

- $\frac{t^6}{3x^5y}$
- $\frac{kp^5}{m^2}$
- $2x^{\frac{7}{2}}$
- $\frac{x^{\frac{7}{15}}}{2}$
- $2x^{10}t^{\frac{11}{3}}$
- $\frac{1}{2px^2}$

Distance and Midpoint

- 8
- 17
- (2, 8.5)
- (6, 8.5)
- $-\frac{15}{8}$
- $-\frac{8}{15}$

Operations with Integers

- 39
- 28
- 5
- 20.2
- 0.3
- $\frac{47}{80}$
- 15
- 0.105
- $\frac{3}{55}$
- 66.56
- $\frac{27}{5}$ or $5\frac{2}{5}$
- 88.33
- 4.9
- 2.7

- $\frac{5}{3}$ or $1\frac{2}{3}$
- $\frac{11}{20}$