

"What do you call a donkey with a defect?"

Solve each system. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $x + 2y = 5$
 $y = 3x - 1$

2. $3x - 3y = 7$
 $2x + 3y = 3$

3. $2x + 4y = 10$
 $x - y = -7$

4. $3x + 5y = -10$
 $2x - 3y = 6$

5. $7x - y = 6$
 $2x + 4y = 11$

6. $x = \frac{4}{3}y$
 $\frac{1}{2}x + \frac{1}{3}y = 3$

7. $\frac{5x + y}{3} = \frac{7}{2}$
 $\frac{5}{2}x - \frac{y}{3} = 4$

(1,1) S	(2,0) I	(1,2) T	(0,-2) A	(-4,-3) E
$(\frac{4}{5}, \frac{3}{2})$ A	$(\frac{1}{2}, 5)$ U	$(2, -\frac{1}{3})$ L	(4, 3) P	(-3, 4) H

7 5 6 3 4 2 1

"What do you get when 3M and Goodyear merge?"

Solve the following systems. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $y = x^3$

$y = x$

2. $x^2 + y^2 = 24$

$y^2 = 2x^2$

3. $x^2 + y^2 = 20$

$x - y = 2$

4. $3x^2 + 5y^2 = 62$

$x^2 + y^2 = 10$

5. $2x^2 + y^2 = 4$

$y = x^2 - 2$

6. $(x + 1)^2 + (y - 4)^2 = 13$

$y = 3x$

7. $\frac{x^2}{4} + \frac{y^2}{16} = 1$

$x^2 + y^2 = 4$

M: $(2, 6), (\frac{1}{5}, \frac{3}{5})$

S: $(\pm 1, 0)$

O: $(\pm\sqrt{2}, 0), (0, -2)$

A: $(1, 1), (-2, -2)$

M: $(0, 0), (1, 1), (-1, -1)$

I: $(\pm 1, \pm 4)$

O: $(\pm 2\sqrt{2}, \pm 4)$

G: $(\pm 2, 0)$

T: $(4, 2), (2, 6)$

D: $(\pm i\sqrt{6}, \pm 4)$

W: $(0, \pm 5)$

M: $(4, 2), (-2, -4)$

V: $(0, 0)$

6 1 3 - 7 5 2 4

Answer: _____

"What do you get when you cross an elephant with a dairy cow?"

Solve each system of equations. Cross out the letter that matches with your answer.
The remaining letters will allow you to figure out the joke.

1. $y = x^2$
 $y = x$

2. $x^2 + y^2 = 30$
 $y = x^2$

3. $x^2 + y^2 = 25$
 $y - x = 1$

4. $4x^2 + 16y^2 = 64$
 $x^2 + y^2 = 16$

5. $x^2 + y^2 = 1$
 $y = x^2 + 5$

6. $\frac{x^2}{5} + \frac{y^2}{25} = 1$
 $x^2 + y^2 = 9$

7. $(x - 2)^2 + (y + 3)^2 = 61$
 $y = 2x$

8. $x^2 + (y - 5)^2 = 49$
 $y - x = -2$

I: $(\pm 2i\sqrt{2}, -3)$ $(\pm i\sqrt{3}, 2)$

N: $(\pm 2, 4)$ $(\pm 3, -5)$

C: $(3, 4)$ $(-4, -3)$

T: $(0, 4)$ $(5, 5)$

F: $(0, -2)$ $(7, 5)$

B: $(4, 4)$ $(-5, -5)$

W: $(0, 0)$ $(1, 1)$

P: $(\pm 3, \pm 4)$

Y: $(\pm 2, \pm\sqrt{5})$

E: $(4, 3)$ $(0, 0)$

S: $(-4, 0)$ $(4, 0)$

U: $(\pm 10, 16)$ $(\pm 3, 9)$

D: $(\pm\sqrt{5}, 5)$ $(\pm i\sqrt{6}, -6)$

A: $(-5, 6)$ $(-7, 9)$

L: $(\frac{12}{5}, \frac{24}{5})$ $(-4, -8)$

R: $(0, 0)$

L Y P D E W A N I U L T D B C U Y T T S F E R

"What do you get when you cross the Atlantic Ocean with the Titanic?"

Solve each system. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $5xy + 13y^2 - 37 = 0$
 $xy - 3y^2 = -15$

A: (2, 4)

2. $4x^2 + 8xy = 40$
 $3x^2 - xy = 2$

F: $(\frac{5}{4}, -\frac{2}{3})$ $(-\frac{5}{4}, \frac{2}{3})$

3. $x^3 + y^3 = 26$
 $2x + 2y = 4$

W: $(\pm\frac{1}{3}, \pm i\sqrt{2})$

4. $2x^3 - 4x^2 + 2y^2 + 6y - 8 = 0$
 $x - 2 + \frac{y^2 - y}{x^2} = 0$

A: $(-\frac{3}{2}, 2)$ $(\frac{3}{2}, -2)$

5. $\log_x y = 2$
 $\log_x (4y) = 4$

Y: (2, 1)

6. $3xy - 2y^2 = -2$
 $9x^2 - 4y^2 = 1$

L: $(\sqrt{2}, 2\sqrt{2})$ $(-\sqrt{2}, -2\sqrt{2})$

7. $\frac{1}{x^2} + \frac{6}{y^2} = 6$

$\frac{4}{x^2} - \frac{4}{y^2} = 38$

3
5
2
6
7
1
4