MATHS·SCHOOL

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Name:

Solve the following simultaneous equations:

a) $y = x^2$
$y + 5x - 14 = 0$

x = -7, y = 49

or

x = 2, y = 4

b) $y = x^2$
$4x + y = 45$

x = -9, y = 81

or

x = 5, y = 25

c) $y + x = 5$
$6x + y^2 = 22$

x = 1, y = 4

or

x = 3, y = 2

d) $y = x + 3$
$y^2 + x^2 = 9$

x = -3, y = 0

or

x = 0, y = 3

e) $y = x + 1$
$y^2 + 3x - 15 = 0$

x = -7, y = -6

or

x = 2, y = 3

f) $y = 2 - 3x$
$y^2 - 5x^2 = -4$

x = 1, y = -1

or

x = 2, y = -4

Solve the following simultaneous equations (giving your answers to 1 decimal place):

g) $y = x^2$ and $y + 4x - 7 = 0$

x = -5.3, y = 28.3

or

x = 1.3, y = 1.7

h) $y = 3 - x$ and $y^2 - 2x = 15$

x = -0.7, y = 3.7

or

x = 8.7, y = -5.7

Exam question:
A line with equation $y = 2x + 5$ intersects a circle with equation $x^2 + y^2 = 10$
Find the co-ordinates of two intersecting points

(-3, -1) and (-1, 3)