**Review Questions: Simultaneous Equations**

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| 1. The lines *y* = 2*x* + 1 and *y* = *x* − 3 will both go through the point: |
| |  |  | | --- | --- | |  | ( 1, 1) | |  | ( 1, 3) | |  | ( −4, −7) | |  | ( 0, −3) | |

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| 1. Match each equation on the left with its gradient and *y*-intercept form from the list on the right.  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *Using the pull-down menus, match each item in the left column to the corresponding item in the right column.* | | | | | | | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif | | | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif | |  |  | | --- | --- | | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif | | | A | *y* = 2 − *x* | |  | | | B |  | |  | | | C | *y* = 2*x* | |  | | | D | *y* = *x* + 2 | |  | | | E | *y* = *x* − 2 | |  | | |  | | **8.1***x* + *y* = 2 |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **8.2***y* − *x* = 2 |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **8.3***y* − *x* + 2 = 0 |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **8.4**2*x* − *y* = 0 |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **8.5**2*y* = *x* |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | |

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| 1. Match each pair of equations on the left with their solution from the list on the right.  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *Using the pull-down menus, match each item in the left column to the corresponding item in the right column.* | | | | | | | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif | | | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif | |  |  | | --- | --- | | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif | | | A | (3, 1) | |  | | | B | (−2, −2) | |  | | | C | (4, −2) | |  | | | D | (−1, −2) | |  | | |  | | **9.1***x* + *y* = 2; *y* = *x* − 6 |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **9.2**2*x* − *y* = 0; *y* = *x* − 1 |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **9.3***x* + 2*y* = 5; *y* = *x* − 2 |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **9.4***y* − *x* = 0; *y* = 2*x* + 2 |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | |

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| 1. The solution to the pair of equations *y* = 5*x* − 4 and *x* + 2*y* = 14 is … |
| |  |  | | --- | --- | |  | (6, 2) | |  | (1, 1) | |  | (2, 6) | |  | (3, 11) | |

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| 1. The solution to the pair of equations *x* + 3*y* − 1 and 2*x* − 3*y* = 20 is … |
| |  |  | | --- | --- | |  | *x* = 10 and *y* = −3 | |  | *x* = 4 and *y* = −1 | |  | *x* = 1 and *y* = 0 | |  | *x* = 7 and *y* = −2 | |

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| 1. Match each pair of equations on the left with their solution from the list on the right.  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *Using the pull-down menus, match each item in the left column to the corresponding item in the right column.* | | | | | | | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif | | | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif | |  |  | | --- | --- | | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif | | | A | (3, −7) | |  | | | B | (1, 1) | |  | | | C | (−3, −2) | |  | | | D | (4, −3) | |  | | |  | | **14.1***x* + *y* = 2; *x* − *y* = 0 |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **14.2**2*x* − 3*y* = 8; *x* + 2*y* = 1 |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **14.3**3*x* − *y* = −7; *x* + 2*y* = −7 |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **14.4***y* − *x* = −7; *y* + 2*x* = 5 |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | |

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| 1. The graphs of *x* + *y* = 10 and *y* = 20 cross at the point where *x* = \_\_\_\_\_. |
| |  |  | | --- | --- | |  | −20 | |  | 20 | |  | −10 | |  | 10 | |

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| 1. The solution to the pair of equations 2*x* + 3*y* = 4 and 3*x* + 2*y* = 1 is ... |
| |  |  | | --- | --- | |  | *x* = −4 and *y* = 4 | |  | *x* = 5 and *y* = −3 | |  | *x* = −1 and *y* = 2 | |  | *x* = 2 and *y* = 0 | |

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| 1. The width of a rectangle is 3 m less than its length. If the perimeter is 38 m, the area must be  m2. |

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| 1. Match each statement about birds and goats with its correct equation.   *b* = no. of birds; *g* = no. of goats   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *Using the pull-down menus, match each item in the left column to the corresponding item in the right column.* | | | | | | | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif | | | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif | |  |  | | --- | --- | | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif | | | A | 2*b* + 4*g* = 50 | |  | | | B | *g* − *b* = 2 | |  | | | C | *b* = 2*g* | |  | | | D | *b* − 2 = *g* | |  | | | E | *b* + *g* = 50 | |  | | | F | *b* = 2 | |  | | |  | | **21.1**there is a total of 50 birds and goats in a paddock |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **21.2**there are 50 legs in the paddock of birds and goats |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **21.3**there are twice as many birds as goats |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **21.4**there are 2 more birds than goats |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **21.5**there are 2 more goats than birds |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | | **21.6**there are 2 birds |  |  | G:\2015-2016\10\launch_book\cw10\uaensm10\uaensm10\media\styles\90\_skins_\A\australia_school\pixel.gif |  | |  | | | |  | |

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| 1. It costs Dhs 13 for 4 apples and 2 oranges, and Dhs 21·50 for 5 apples and 6 oranges. What is the cost of one apple and one orange? |
| |  |  | | --- | --- | |  | Dhs 3·50 | |  | Dhs 4·00 | |  | Dhs 4·50 | |  | Dhs 5·00 | |

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| 1. Company *A* charges Dhs 30 per month and Dhs 0·20 per minute for mobile phone calls whereas Company *B* charges Dhs 20 per month and Dhs 0·25 per minute. After how many minutes per month would the costs from the two companies be the same? |
| |  |  | | --- | --- | |  | 100 minutes | |  | 50 minutes | |  | 250 minutes | |  | 200 minutes | |

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| 1. A rectangle has a perimeter of 64 cm. If the length is 6 cm more than the width, the width of the rectangle must be: |
| |  |  | | --- | --- | |  | 13 cm | |  | 19 cm | |  | 26 cm | |  | 10 cm | |