Review Questions: Equations, Formulae and Inequations

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| 1. The solution to the equation 3*m* = 18, is *m* =
 |
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| --- | --- |
|    | 21 |
|    | 54 |
|    | 15 |
|    | 6 |

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| 1. The solution to the equation 3*a* − 6 = −15, is *a* =
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| --- | --- |
|    | −9 |
|    | −7 |
|    | 3 |
|    | −3 |
|    | 9 |

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| 1. I think of a number *n*, add 6 and multiply it by 4 to get a result of −8. The value of *n* must have been ...
 |
|

|  |  |
| --- | --- |
|    | −4 |
|    | −8 |
|    | −12 |
|    | 8 |
|    | 12 |
|    | 4 |

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| 1. The solution to the equation 4*p* − 12 = −8, is *p* = \_\_\_\_\_.
 |
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| --- | --- |
|    | 3 |
|    | 4 |
|    | 6 |
|    | 1 |
|    | 5 |

 |

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| 1. Choose the correct symbol to complete the statement 62 − 5 \_\_\_\_\_ 8 × 4.
 |
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|  |  |
| --- | --- |
|    | = |
|    | <= |
|    | < |
|    | >= |
|    | > |

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| 1. I think of a number *n*, multiply it by 4 and subtract 3 to get a result of −7. The value of *n* must have been ...
 |
|

|  |  |
| --- | --- |
|    | −1 |
|    | 1 |
|    | −2.5 |
|    | 2.5 |
|    | −16 |
|    | 16 |

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| 1. I think of a number *n*, multiply it by 5 and add 3 to get a result of 18. The equation that fits this process is ...
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|

|  |  |
| --- | --- |
|    | 5(*n* + 3) = 18 |
|    | 3*n* + 5 = 18 |
|    | 5*n* + 3 = 18 |
|    | 3(*n* + 5) = 18 |

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| 1. The solution to the equation 2(*x* + 3) + 3*x* = 21, is *x* = ...
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|

|  |  |
| --- | --- |
|    | 4 |
|    | 3 |
|    | −2 |
|    | −4 |
|    | −3 |
|    | 2 |

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| 1. Match each operation on the left with its opposite operation on the right.

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| A | addition |
|  |
| B | subtraction |
|  |
| C | multiplication |
|  |
| D | division |
|  |

 |  |
| **11.1**addition |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **11.2**subtraction |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **11.3**multiplication |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **11.4**division |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| 1. Match each operation on the left with its inverse (opposite) operation on the right.

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| *Using the pull-down menus, match each item in the left column to the corresponding item in the right column.* |
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| A | divide by 4 |
|  |
| B | multiply by 4 |
|  |
| C | add 4 |
|  |
| D | subtract 4 |
|  |

 |  |
| **12.1**add 4 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **12.2**subtract 4 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **12.3**multiply by 4 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **12.4**divide by 4 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| 1. Match each equation on the left with its solution on the right.

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| *Using the pull-down menus, match each item in the left column to the corresponding item in the right column.* |
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| A | *b* = 12 |
|  |
| B | *b* = 5 |
|  |
| C | *b* = 32 |
|  |
| D | *b* = 6 |
|  |
| E | *b* = 7 |
|  |

 |  |
| **13.1**5*b* = 30 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **13.2**$\frac{b}{6}=2$ |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **13.3**7*b* − 4 = 31 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **13.4**5(*b* − 7) = 0 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **13.5**$\frac{b}{4}- 5 = 3$ |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| 1. If I am *y* years old now, in ten years time I will be \_\_\_\_\_ years of age.
 |
|

|  |  |
| --- | --- |
|    | *y* + 10 |
|    | 10 − *y* |
|    | 10*y* |
|    | *y* − 10 |
|    | *y* + *y* |

 |

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| 1. Samar has Dhs *d* in her bank account. She withdraws Dhs 100 then doubles the balance the next time she gets paid. Her balance could then be written as \_\_\_\_\_.
 |
|

|  |  |
| --- | --- |
|    | 2*d* − 100 |
|    | 2 × 100 − *d* |
|    | *d* − 100 × 2 |
|    | 2(*d* − 100) |
|    | 2(100 − *d*) |

 |

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| 1. When I paid for 3 identical T-shirts with a Dhs 50 note, I received Dhs 8 change. If *T* represents the value of a T-shirt, the equation that does not fit this statement is ...
 |
|

|  |  |
| --- | --- |
|    | 3*T* + 8 = 50 |
|    | 50 − 3*T* = 8 |
|    | 50 − 8 = 3*T* |
|    | 3(*T* + 8) = 50 |
|    | *T* = (50 − 8) ⁄ 3 |

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| 1. The solution to the inequation *m* + 6 < 2 is ...
 |
|

|  |  |
| --- | --- |
|    | *m* < −4 |
|    | *m* < −8 |
|    | *m* > 4 |
|    | *m* > −4 |
|    | *m* > 8 |
|    | *m* < 4 |

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| 1. Match each equation on the left with its solution on the right.

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| A | *x* = 1 |
|  |
| B | *x* = 0 |
|  |
| C | *x* = 2 |
|  |
| D | $$x =\frac{1}{2}$$ |
|  |
| E | *x* = −1 |
|  |
| F | *x* = −5 |
|  |

 |  |
| **19.1**2(*x* − 3) = −6 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **19.2**3(*x* + 2) = 12 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **19.3**9(*x* + 2) = 9 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **19.4**8(2*x* + 3) = 32 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **19.5**4(3*x* + 1) = 16 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **19.6**5(2*x* + 3) = −35 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| 1. The solution to the inequation 2(*b* − 4) > 6 is ...
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|

|  |  |
| --- | --- |
|    | *b* < 7 |
|    | *b* < −7 |
|    | *b* > 7 |
|    | *b* > −7 |

 |

|  |
| --- |
| 1. The solution to the inequation 2*m* − 5 < 13 is ...
 |
|

|  |  |
| --- | --- |
|    | *m* < 9 |
|    | *m* > 9 |
|    | *m* > −9 |
|    | *m* > 4 |
|    | *m* > −4 |
|    | *m* < 4 |

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|  |
| --- |
| 1. A value of *x* that fits the inequation 2*x* − 1 < −5 is \_\_\_\_\_.
 |
|

|  |  |
| --- | --- |
|    | −5 |
|    | −2 |
|    | 0 |
|    | 5 |
|    | 2 |

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| 1. Match each statement on the left with its correct expression on the right.

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| A | *a* = *b* + 1 |
|  |
| B | *a* = *b* −1 |
|  |
| C | *b* < *a* < 1 |
|  |
| D | 1 < *b* < *a* |
|  |
| E | *a* > *b* |
|  |
| F | *a* < *b* |
|  |

 |  |
| **25.1***a* is less than *b* |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **25.2***a* is more than *b* |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **25.3***b* is between 1 and *a* |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **25.4***a* is between *b* and 1 |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **25.5***a* is one more than *b* |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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| **25.6***a* is one less than *b* |  |  | G:\2015-2016\10\launch_book\cw8\uaensm8\uaensm8\media\styles\90\_skins_\A\australia_school\pixel.gif |  |
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