**End of Unit Test** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Inequalities - FOUNDATION**

**1.** Put the correct symbol in each box. Choose from      <      >      =

|  |  |  |
| --- | --- | --- |
| $$11 ×12$$ |  | $$22 ×6$$ |
| $$3^{2}$$ |  | $$2^{3}$$ |
| $$\frac{10}{0.5}$$ |  | $$10$$ |

 **(Total 3 marks)**

 **2.** Circle the inequality shown by the diagram.



 $-7<x<6$ $-7\leq x<6$ $-7<x\leq 6$ $-7\leq x\leq 6$

 **(Total 1 mark)**

**3.** (a) $x$ is an integer.

$-7\leq x<9$

Work out the **largest** possible value of $x^{2}$.

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   Answer .................................................................................

**(1)**

(b) $y$ is an integer.

$-4<x<3$

Work out the **smallest** possible value of *y*3

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   Answer .................................................................................

**(1)**

**(Total 2 marks)**

**4.** $10<5x\leq 35$

List the possible **integer** values of *x*.

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Answer ......................................................................

**(Total 3 marks)**

**5.** Solve  $2n+1 \leq 15$

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Answer ......................................................................

**(Total 2 marks)**

 **6.** (a) Solve  $4x-7 \leq 13$

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Answer ......................................................................

**(2)**

(b) Show  $3 <x \leq 8$  on the number line.



**(2)**

**(Total 4 marks)**

**7.** (a) Write down **all** the integers that satisfy $-3\leq n<2$

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Answer ...................................................................................

**(1)**

(b) Show $2<x\leq 10$     on the number line.



**(2)**

**(Total 3 marks)**

**8.** Solve $5x-2>3x+11$

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Answer ............................................

**(Total 2 marks)**

 **(Total for test = 20 marks)**