

Algebra I
4.1 Worksheet
Inequalities

NAME: _____
DATE: _____ HOUR: _____

For $x = -1$, determine whether each inequality is true or false.

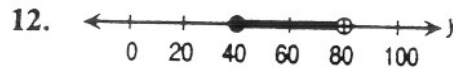
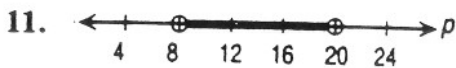
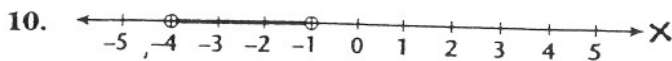
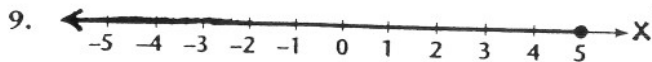
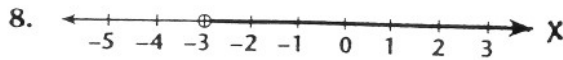
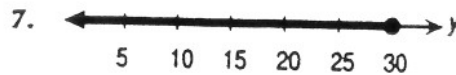
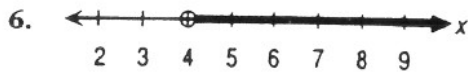
1. $x - 1 > 0$ $-1 - 1 > 0$ 2. $-x > 0$ $-(-1) > 0$
3. $x \leq 5 - 6$ $-1 \leq 5 - 6$ 4. $x + 2 > 1$ $-1 + 2 > 1$

Wholesale Pet Supplies uses the table shown to determine shipping and handling charges.

SHIPPING AND HANDLING CHART RESIDENTIAL				
If your order is:	ZONE 1	ZONE 2	ZONE 3	For orders over \$145 there is no regular shipping charge.
\$25.00 to \$50.00	\$5.95	\$7.35	\$8.35	
\$50.01 to \$75.00	\$6.40	\$8.25	\$9.95	
\$75.01 to \$145.00	\$7.85	\$9.95	\$11.95	

5. Write an inequality to represent the possible amount A , of an order to be shipped to zone 3 if the shipping and handling cost is \$9.95.

Write an inequality that describes the points on the number lines.



In 13–16, graph the inequality given or suggested by the situation.

13. I weigh between 40 kg and 50 kg. 14. Our teacher is at least 30 years old but younger than 55.

15. $-2 < m$ $m >$

16. $20 \geq c$ $c \leq$

???? Trivia Question ???? Records

The oldest working clock, at Salisbury Cathedral in London, was made in the year _____.

To check your answer:

- First use a ruler to match each inequality with its graph.
- Each line you draw will cross a number.
- Then shade in each piece of the digital Decoder containing one of the crossed numbers. (Some numbers appear in the Decoder more than once.)
- Read the final digital display.

<ol style="list-style-type: none"> 1. $n > -3$ 2. $n < -3$ 3. $n \geq -3$ 4. $n \leq -3$ 5. $n > 3$ 6. $n < 3$ 7. $n \geq 3$ 8. $n \leq 3$ 9. $n < \frac{1}{2}$ 10. $n > \frac{1}{2}$ 11. $n \leq -\frac{1}{2}$ 12. $n \geq -\frac{1}{2}$ 13. $n < -1\frac{1}{2}$ 14. $n > -1\frac{1}{2}$ 	<p>15 16 17</p> <p>18 19</p> <p>20 21</p> <p>22 23 24</p> <p>25 26</p> <p>27 28</p> <p>29 30 31</p> <p>32 33 34</p> <p>35 36</p>	<p style="text-align: center;">-5 -4 -3 -2 -1 0 1 2 3 4 5</p> <ol style="list-style-type: none"> a. b. c. d. e. f. g. h. i. j. k. l. m. n.
---	--	--

DECODER

<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="width: 25%;">24</td><td style="width: 25%;"></td><td style="width: 25%;">19</td><td style="width: 25%;"></td></tr> <tr><td>35</td><td></td><td></td><td></td></tr> <tr><td>22</td><td></td><td></td><td></td></tr> <tr><td>34</td><td></td><td></td><td></td></tr> <tr><td>21</td><td></td><td></td><td></td></tr> <tr><td>22</td><td></td><td></td><td></td></tr> </table>	24		19		35				22				34				21				22				<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="width: 25%;">17</td><td style="width: 25%;"></td><td style="width: 25%;">20</td><td style="width: 25%;"></td></tr> <tr><td>18</td><td></td><td></td><td></td></tr> <tr><td>23</td><td></td><td></td><td></td></tr> <tr><td>36</td><td></td><td></td><td></td></tr> <tr><td>20</td><td></td><td></td><td></td></tr> <tr><td>33</td><td></td><td></td><td></td></tr> </table>	17		20		18				23				36				20				33				<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="width: 25%; background-color: #cccccc;">28</td><td style="width: 25%;"></td><td style="width: 25%;">32</td><td style="width: 25%;"></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td>21</td><td></td><td></td><td></td></tr> <tr><td>27</td><td></td><td></td><td></td></tr> <tr><td>29</td><td></td><td></td><td></td></tr> <tr><td>19</td><td></td><td></td><td></td></tr> </table>	28		32						21				27				29				19				<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="width: 25%;">25</td><td style="width: 25%;"></td><td style="width: 25%;">16</td><td style="width: 25%;"></td></tr> <tr><td>31</td><td></td><td></td><td></td></tr> <tr><td>30</td><td></td><td></td><td></td></tr> <tr><td>25</td><td></td><td></td><td></td></tr> <tr><td>26</td><td></td><td></td><td></td></tr> <tr><td>26</td><td></td><td></td><td></td></tr> </table>	25		16		31				30				25				26				26			
24		19																																																																																																	
35																																																																																																			
22																																																																																																			
34																																																																																																			
21																																																																																																			
22																																																																																																			
17		20																																																																																																	
18																																																																																																			
23																																																																																																			
36																																																																																																			
20																																																																																																			
33																																																																																																			
28		32																																																																																																	
21																																																																																																			
27																																																																																																			
29																																																																																																			
19																																																																																																			
25		16																																																																																																	
31																																																																																																			
30																																																																																																			
25																																																																																																			
26																																																																																																			
26																																																																																																			

Answer: _____ A.D.