Supplemental Worksheet Problems To Accompany:

The Pre-Algebra Tutor: Volume 1
Section 3 – Greater Than, Less Than, Equal To

Please watch Section 3 of this DVD before working these problems.

The DVD is located at:

http://www.mathtutordvd.com/products/item66.cfm
Using the <, >, or = symbols, express the following statements:

1) Two is greater than zero.

2) Eight is greater than six.

3) Negative twelve is less than two.

4) One is greater than negative five.

5) Negative twelve is greater than negative twenty.

6) Negative two is equal to negative two.

7) Ten is greater than eight.

8) Ten is equal to ten.

9) Negative sixteen is less than negative one.

10) Seven is less than forty.
11) Using the <, >, or = symbols, compare the following numbers: 5, 10

12) Using the <, >, or = symbols, compare the following numbers: -1, 0

13) Using the <, >, or = symbols, compare the following numbers: 32, 10

14) Using the <, >, or = symbols, compare the following numbers: -100, 6

15) Using the <, >, or = symbols, compare the following numbers: 2.2, 2

16) Using the <, >, or = symbols, compare the following numbers: 11, 11

17) Using the <, >, or = symbols, compare the following numbers: 30, -65

18) Using the <, >, or = symbols, compare the following numbers: 12, -11

19) Using the <, >, or = symbols, compare the following numbers: -61, -61.1

20) Using the <, >, or = symbols, compare the following numbers: 24, 2.8

21) Using the <, >, or = symbols, compare the following numbers: -99, -77
22) Compare the following two numbers by filling in the blank with <, >, or = symbol.

\[-3 \quad \quad \quad \quad 8\]

23) Compare the following two numbers by filling in the blank with <, >, or = symbol.

\[1.8 \quad \quad 2\]

24) Compare the following two numbers by filling in the blank with <, >, or = symbol.

\[34 \quad \quad \quad \quad 34\]

25) Compare the following two numbers by filling in the blank with <, >, or = symbol.

\[-12 \quad \quad -51\]

26) Compare the following two numbers by filling in the blank with <, >, or = symbol.

\[-1.5 \quad \quad -1.5\]

27) Compare the following two numbers by filling in the blank with <, >, or = symbol.

\[47 \quad \quad -48\]

28) Compare the following two numbers by filling in the blank with <, >, or = symbol.

\[21 \quad \quad -21\]
29) Compare the following two points using the <, >, or = symbols: A, E

30) Compare the following two points using the <, >, or = symbols: C, B

31) Compare the following two points using the <, >, or = symbols: F, A

32) Compare the following two points using the <, >, or = symbols: D, A

33) Compare the following two points using the <, >, or = symbols: B, A

34) Compare the following two points using the <, >, or = symbols: F, D

35) Compare the following two points using the <, >, or = symbols: E, F
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| 1) Two is greater than zero.                       | First, we need to remember how to use the less than, greater than and equal symbols (<, > and =).  
The easy one is equals which means the values to the left of it and right of it are exactly the same.  
The less than or greater than symbols are telling us the same thing. What we have to remember is the placement of the symbol and where the bigger number and the smaller number go (left of or right of symbol). Just remember that the pointy end points to the smaller number.  
In this case, $2$ is the greater number as the expression states, so the pointy end will point at $0$.  
**Ans:** $2 > 0$ |
| 2) Eight is greater than six.                      | First, we need to remember how to use the less than, greater than and equal symbols (<, > and =).  
The easy one is equals which means the values to the left of it and right of it are exactly the same.  
The less than or greater than symbols are telling us the same thing. What we have to remember is the placement of the symbol and where the bigger number and the smaller number go (left of or right of symbol). Just remember that the pointy end points to the smaller number.  
In this case, $8$ is the greater number as the expression states, so the pointy end will point at $6$.  
**Ans:** $8 > 6$ |
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| **3) Negative twelve is less than two.** | First, we need to remember how to use the less than, greater than and equal symbols (<, > and =).  
The easy one is equals which means the values to the left of it and right of it are exactly the same.  
The less than or greater than symbols are telling us the same thing. What we have to remember is the placement of the symbol and where the bigger number and the smaller number go (left of or right of symbol). Just remember that the pointy end points to the smaller number.  
In this case, -12 is the smaller number as the expression states, so the pointy end will point at -12.  
**Ans:** -12 < 2 |
| **4) One is greater than negative five.** | First, we need to remember how to use the less than, greater than and equal symbols (<, > and =).  
The easy one is equals which means the values to the left of it and right of it are exactly the same.  
The less than or greater than symbols are telling us the same thing. What we have to remember is the placement of the symbol and where the bigger number and the smaller number go (left of or right of symbol). Just remember that the pointy end points to the smaller number.  
In this case, 1 is the greater number as the expression states, so the pointy end will point at -5.  
**Ans:** 1 > -5 |
5) Negative twelve is greater than negative twenty.

First, we need to remember how to use the less than, greater than and equal symbols (<, > and =).

The easy one is equals which means the values to the left of it and right of it are exactly the same.

The less than or greater than symbols are telling us the same thing. What we have to remember is the placement of the symbol and where the bigger number and the smaller number go (left of or right of symbol). Just remember that the pointy end points to the smaller number.

In this case, -12 is the greater number as the expression states, so the pointy end will point at -20.

Ans: \(-12 > -20\)

6) Negative two is equal to negative two.

First, we need to remember how to use the less than, greater than and equal symbols (<, > and =).

The easy one is equals which means the values to the left of it and right of it are exactly the same.

The less than or greater than symbols are telling us the same thing. What we have to remember is the placement of the symbol and where the bigger number and the smaller number go (left of or right of symbol). Just remember that the pointy end points to the smaller number.

In this case, -2 is equal to -2.

Ans: \(-2 = -2\)
### Section 3 – Greater Than, Less Than, Equal To

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<td>7) Ten is greater than eight.</td>
<td>First, we need to remember how to use the less than, greater than and equal symbols (&lt;, &gt; and =). The easy one is equals which means the values to the left of it and right of it are exactly the same. The less than or greater than symbols are telling us the same thing. What we have to remember is the placement of the symbol and where the bigger number and the smaller number go (left of or right of symbol). Just remember that the pointy end points to the smaller number. In this case, 10 is the greater number as the expression states, so the pointy end will point at 8. <strong>Ans:</strong> <strong>10 &gt; 8</strong></td>
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<td>8) Ten is equal to ten.</td>
<td>First, we need to remember how to use the less than, greater than and equal symbols (&lt;, &gt; and =). The easy one is equals which means the values to the left of it and right of it are exactly the same. The less than or greater than symbols are telling us the same thing. What we have to remember is the placement of the symbol and where the bigger number and the smaller number go (left of or right of symbol). Just remember that the pointy end points to the smaller number. In this case, 10 is equal to 10. <strong>Ans:</strong> <strong>10 = 10</strong></td>
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<td>Exercise</td>
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<td>9)</td>
<td>Negative sixteen is less than negative one.</td>
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<td>Ans:</td>
<td>-16 &lt; -1</td>
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<td>10)</td>
<td>Seven is less than forty.</td>
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<td>Ans:</td>
<td>7 &lt; 40</td>
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11) Using the <, >, or = symbols, compare the following numbers: 5, 10

First, let’s evaluate the two numbers when compared to each other. Is the first number, less than, greater than or equal to the second number?

The number 5 is closer to zero on the number line and 10 is further than 5 from zero on the number line which means 10 is greater. So 5 is less than 10, or 10 is greater than 5. Remember the pointy part of the symbol points to the smaller number.

Ans: 5 < 10, or 10 > 5

12) Using the <, >, or = symbols, compare the following numbers: -1, 0

First, let’s evaluate the two numbers when compared to each other. Is the first number, less than, greater than or equal to the second number?

The number -1 is to the left of zero on the number line. Recall that as we head further and further to the left of the number line from zero, the numbers are considered smaller (you owe more). So -1 is less than 0, or 0 is greater than -1. Remember the pointy part of the symbol points to the smaller number.

Ans: -1 < 0, or 0 > -1

13) Using the <, >, or = symbols, compare the following numbers: 32, 10

First, let’s evaluate the two numbers when compared to each other. Is the first number, less than, greater than or equal to the second number?

The number 32 is further right from zero on the number line than 10. As we travel further to the right of the number line the bigger the number (the more I have), so 32 is greater than 10, or 10 is less than 32. Remember the pointy part of the symbol points to the smaller number.

Ans: 32 > 10, or 10 < 32
14) Using the $<$, $>$, or $=$ symbols, compare the following numbers: $-100$, $6$

First, let’s evaluate the two numbers when compared to each other. Is the first number, less than, greater than or equal to the second number?

The number $-100$ is to the left of zero on the number line. Recall that as we head further and further to the left of the number line from zero, the numbers are considered smaller (you owe more). So $-100$ is less than $6$, or $6$ is greater than $-100$.

Remember the pointy part of the symbol points to the smaller number.

Ans: $-100 < 6$, or $6 > -100$

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15) Using the $<$, $>$, or $=$ symbols, compare the following numbers: $2.2$, $2$

First, let’s evaluate the two numbers when compared to each other. Is the first number, less than, greater than or equal to the second number?

The number $2.2$ is further right from zero on the number line than $2$. As we travel further to the right of the number line the bigger the number (the more I have), so $2.2$ is greater than $2$, or $2$ is less than $2.2$.

Remember the pointy part of the symbol points to the smaller number.

Ans: $2.2 > 2$, or $2 < 2.2$

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16) Using the $<$, $>$, or $=$ symbols, compare the following numbers: $11$, $11$

First, let’s evaluate the two numbers when compared to each other. Is the first number, less than, greater than or equal to the second number?

The number $11$ is exactly the same as the number $11$, which means they are equal to each other.

Ans: $11 = 11$
17) Using the <, >, or = symbols, compare the following numbers: 30, -65

First, let’s evaluate the two numbers when compared to each other. Is the first number, less than, greater than or equal to the second number?

The number 30 is to the right of zero on the number line and -65 is to the left of the number line from zero which means 30 is greater. So 30 is greater than -65, or -65 is less than 30. Remember the pointy part of the symbol points to the smaller number.

Ans: 30 > -65, or -65 < 30

18) Using the <, >, or = symbols, compare the following numbers: 12, -11

First, let’s evaluate the two numbers when compared to each other. Is the first number, less than, greater than or equal to the second number?

The number 12 is to the right of zero on the number line and -11 is to the left of the number line from zero which means 12 is greater. So 12 is greater than -11, or -11 is less than 12. Remember the pointy part of the symbol points to the smaller number.

Ans: 12 > -11, or -11 < 12

19) Using the <, >, or = symbols, compare the following numbers: -61, -61.1

First, let’s evaluate the two numbers when compared to each other. Is the first number, less than, greater than or equal to the second number?

Both numbers are negative and really close to each other on a number line, but -61.1 is further to the left of the number line from 0 than -61, which means it’s smaller. The further we go to the left from zero the smaller the numbers (the more you owe). Remember the pointy part of the symbol points to the smaller number.

Ans: -61 > -61.1, or -61.1 < -61
20) Using the $<$, $>$, or $=$ symbols, compare the following numbers: 24, 2.8

First, let’s evaluate the two numbers when compared to each other. Is the first number, less than, greater than or equal to the second number?

The number 24 is further right from zero on the number line than 2.8. As we travel further to the right of the number line the bigger the number (the more I have), so 24 is greater than 2.8, or 2.8 is less than 24. Remember the pointy part of the symbol points to the smaller number.

Ans: $24 > 2.8$, or $2.8 < 24$

21) Using the $<$, $>$, or $=$ symbols, compare the following numbers: -99, -77

First, let’s evaluate the two numbers when compared to each other. Is the first number, less than, greater than or equal to the second number?

The number -99 is further to the left of 0 from the number line than -77 which means -99 is the smaller number. So -99 is less than -77, or -77 is greater than -99. Remember the pointy part of the symbol points to the smaller number.

Ans: $-99 < -77$, or $-77 > -99$

22) Compare the following two numbers by filling in the blank with $<$, $>$, or $=$ symbol.

$-3 \_\_ 8$

First, we need to compare how the first number compares to the second number and use the appropriate symbol to compare the first number to the second.

We see right away that -3 is on the left side of the number line from 0 and 8 is to the right of 0 on the number line. This makes -3 smaller or less than 8. So we use the symbol with the pointy side towards -3.

Ans: $-3 < 8$
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<td>23) Compare the following two numbers by filling in the blank with &lt;, &gt;, or = symbol.</td>
<td>First, we need to compare how the first number compares to the second number and use the appropriate symbol to compare the first number to the second. We see right away that 1.8 and 2 are both to the right of 0 on the number line, but 2 is further right which makes it the bigger number. This makes 1.8 smaller or less than 2. So we use the symbol with the pointy side towards 1.8. Ans: $1.8 &lt; 2$</td>
</tr>
<tr>
<td>24) Compare the following two numbers by filling in the blank with &lt;, &gt;, or = symbol.</td>
<td>First, we need to compare how the first number compares to the second number and use the appropriate symbol to compare the first number to the second. We see right away that 34 and 34 are the exact same number which makes them equal to each other. Ans: $34 = 34$</td>
</tr>
<tr>
<td>25) Compare the following two numbers by filling in the blank with &lt;, &gt;, or = symbol.</td>
<td>First, we need to compare how the first number compares to the second number and use the appropriate symbol to compare the first number to the second. We see right away that -12 is on the left side of the number line from 0. We also see that -51 is to the left of 0 on the number line. However, -51 is further to the left than -12 which means it's smaller. This makes -12 greater than -51. So we use the symbol with the pointy side towards -51. Ans: $-12 &gt; -51$</td>
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26) Compare the following two numbers by filling in the blank with <, >, or = symbol.

\(-1.5 \underline{} -1.5\)

First, we need to compare how the first number compares to the second number and use the appropriate symbol to compare the first number to the second.

We see right away that \(-1.5\) and \(-1.5\) are the exact same number which makes them equal to each other.

\(\text{Ans: } -1.5 = -1.5\)

27) Compare the following two numbers by filling in the blank with <, >, or = symbol.

\(47 \underline{} -48\)

First, we need to compare how the first number compares to the second number and use the appropriate symbol to compare the first number to the second.

We see right away that 47 is on the right side of the number line from 0. We also see that \(-48\) is to the left of 0 on the number line, which means 47 is greater than \(-48\). So we use the symbol with the pointy side towards \(-48\).

\(\text{Ans: } 47 > -48\)

28) Compare the following two numbers by filling in the blank with <, >, or = symbol.

\(21 \underline{} -21\)

First, we need to compare how the first number compares to the second number and use the appropriate symbol to compare the first number to the second.

We see right away that both numbers look very similar with the difference of their sign. The number 21 is on the right side of the number line from 0. We also see that \(-21\) is to the left of 0 on the number line, which means 21 is greater than \(-21\). So we use the symbol with the pointy side towards \(-21\).

\(\text{Ans: } 21 > -21\)
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| 29) Compare the following two points using the $<, >,$ or $=$ symbols: A, E | First, we see where the letters point to on the number line. The letter A is on -9 and the letter E is on 5.

We notice that -9 is to the left of 0 on the number line and 5 is to the right of 0 on the number line, which means -9 is smaller than 5 or 5 is greater than -9. Remember the pointy part of the symbol points to the smaller number.

A = -9, E = 5, therefore:

**Ans:** -9 $<$ 5, or 5 $>$ -9 |
| 30) Compare the following two points using the $<, >,$ or $=$ symbols: C, B | First, we see where the letters point to on the number line. The letter C is on 0 and the letter B is on -5.

We notice that -5 is to the left of 0 on the number line, which means 0 is greater than -5 or -5 is less than 0. Remember the pointy part of the symbol points to the smaller number.

C = 0, B = -5, therefore:

**Ans:** 0 $>$ -5, or -5 $<$ 0 |
31) Compare the following two points using the <, >, or = symbols: F, A

First, we see where the letters point to on the number line. The letter F is on 10 and the letter A is on -9.

We notice that 10 is to the right of 0 on the number line and -9 is to the left of 0 on the number line, which means 10 is greater than -9 or -9 is less than 10. Remember the pointy part of the symbol points to the smaller number.

F= 10, A= -9, therefore:

Ans: 10 > -9, or -9 < 10

32) Compare the following two points using the <, >, or = symbols: D, A

First, we see where the letters point to on the number line. The letter D is on 1 and the letter A is on -9.

We notice that 1 is to the right of 0 on the number line and -9 is to the left of 0 on the number line, which means 1 is greater than -9 or -9 is less than 1. Remember the pointy part of the symbols point to the smaller number.

D= 1, A= -9, therefore:

Ans: 1 > -9, or -9 < 1
33) Compare the following two points using the <, >, or = symbols: B, A

First, we see where the letters point to on the number line. The letter B is on -5 and the letter A is on -9.

We notice that both numbers are to the left of 0 on the number line, but -9 is further from 0 than -5. So this makes -9 smaller than -5, or -5 greater than -9. Remember the pointy part of the symbol points to the smaller number.

B = -5, A = -9, therefore:

**Ans:** -5 > -9, or -9 < -5

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34) Compare the following two points using the <, >, or = symbols: F, D

First, we see where the letters point to on the number line. The letter F is on 10 and the letter D is on 1.

We notice that 10 is to the right of 0 on the number line and 1 is to the right of 0 on the number line as well, but 10 is further to the right which means 10 is greater than 1, or 1 is less than 10. Remember the pointy part of the symbols point to the smaller number.

F = 10, D = 1, therefore:

**Ans:** 10 > 1, or 1 < 10
35) Compare the following two points using the <, >, or = symbols: E, F

First, we see where the letters point to on the number line. The letter E is on 5 and the letter F is on 10.

We notice that 5 is to the right of 0 on the number line and 10 is to the right of 0 on the number line as well, but 10 is further to the right, which means 10 is greater than 5, or 5 is less than 10. Remember the pointy part of the symbol points to the smaller number.

E= 5, F= 10, therefore:

**Ans: 5 < 10, or 10 > 5**