

MATH 161 WORKOUT 1 NAME: \_\_\_\_\_

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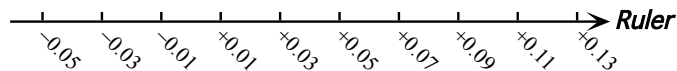
[ Run: 10/28/2012 at 22:33. Order of Checkable Items: List.]

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1-1. Identify the number specified by the specifying phrase  $-7(+7 - 10)$

1-2. Identify the number specified by the equation  $-3x + 21 = -7x + 1$

1-3. Given the following quantitative ruler,



which of the following bunches of numbers, if any, is(are) all *bounded numbers*?

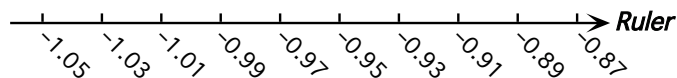
M.  $+0.01, +0.02, +0.03, +0.04, +0.05, +0.06, +0.07$

N.  $-0.01, 0.00, +0.03, +0.05$

O.  $-0.05, -0.03, -0.01, +0.01, +0.03$

P.  $+0.09, +0.11, +0.05, +0.13, +0.15, +0.17$

1-4. Given the following quantitative ruler,



which of the following bunches, if any, is (are) all *offscreen numbers*?

2

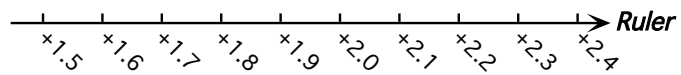
M  $-1, -0.5$

N  $-2, 0, +1$

O  $-2$

P  $-1, +1$

1-5. Given the following quantitative ruler,



which of the following bunches of numbers, if any, is (are) all *finite numbers*?

M  $+1, +2, +3, +4$

N  $+1.8, +2.4$

O  $-2$

P  $+1.68, +1.69$

1-6. Which of the following phrases specify a function?

$x \xrightarrow{M} M(x) = \text{Mother of } x$

$x \xrightarrow{N} N(x) = \text{Sister of } x$

$x \xrightarrow{O} O(x) = \text{Daughter of } x$

$x \xrightarrow{P} P(x) = \text{Boss of } x$

**1-7.** Which of the following *tabular relations*, if any, is/are function(s)?

M:	<table style="border-collapse: collapse; width: 100%;"> <thead> <tr> <th style="border: none;">Input</th> <th style="border: none;">Output</th> </tr> </thead> <tbody> <tr><td style="border: none;">-354</td><td style="border: none;">-56</td></tr> <tr><td style="border: none;">+22</td><td style="border: none;">-351</td></tr> <tr><td style="border: none;">-123</td><td style="border: none;">+753</td></tr> <tr><td style="border: none;">-57</td><td style="border: none;">-36</td></tr> <tr><td style="border: none;">+25</td><td style="border: none;">-675</td></tr> <tr><td style="border: none;">-123</td><td style="border: none;">+43</td></tr> </tbody> </table>	Input	Output	-354	-56	+22	-351	-123	+753	-57	-36	+25	-675	-123	+43	N:	<table style="border-collapse: collapse; width: 100%;"> <thead> <tr> <th style="border: none;">Input</th> <th style="border: none;">Output</th> </tr> </thead> <tbody> <tr><td style="border: none;">-258</td><td style="border: none;">-47</td></tr> <tr><td style="border: none;">-46</td><td style="border: none;">-47</td></tr> <tr><td style="border: none;">+391</td><td style="border: none;">-47</td></tr> <tr><td style="border: none;">+18</td><td style="border: none;">-47</td></tr> <tr><td style="border: none;">+100</td><td style="border: none;">-47</td></tr> <tr><td style="border: none;">0</td><td style="border: none;">-47</td></tr> </tbody> </table>	Input	Output	-258	-47	-46	-47	+391	-47	+18	-47	+100	-47	0	-47	O:	<table style="border-collapse: collapse; width: 100%;"> <thead> <tr> <th style="border: none;">Input</th> <th style="border: none;">Output</th> </tr> </thead> <tbody> <tr><td style="border: none;">-44</td><td style="border: none;">+17</td></tr> <tr><td style="border: none;">+17</td><td style="border: none;">-1</td></tr> <tr><td style="border: none;">-52</td><td style="border: none;">-13</td></tr> <tr><td style="border: none;">+43</td><td style="border: none;">-17</td></tr> <tr><td style="border: none;">-43</td><td style="border: none;">-17</td></tr> <tr><td style="border: none;">-356</td><td style="border: none;">+17</td></tr> </tbody> </table>	Input	Output	-44	+17	+17	-1	-52	-13	+43	-17	-43	-17	-356	+17	P:	<table style="border-collapse: collapse; width: 100%;"> <thead> <tr> <th style="border: none;">Input</th> <th style="border: none;">Output</th> </tr> </thead> <tbody> <tr><td style="border: none;">-6</td><td style="border: none;">+6</td></tr> <tr><td style="border: none;">+47</td><td style="border: none;">-47</td></tr> <tr><td style="border: none;">-789</td><td style="border: none;">+789</td></tr> <tr><td style="border: none;">-98</td><td style="border: none;">+98</td></tr> <tr><td style="border: none;">-198</td><td style="border: none;">+198</td></tr> <tr><td style="border: none;">+20</td><td style="border: none;">-20</td></tr> </tbody> </table>	Input	Output	-6	+6	+47	-47	-789	+789	-98	+98	-198	+198	+20	-20
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**1-8.** Which of the following input-output rules specifies a *function*?

$$x \xrightarrow{M} M(x) = -x$$

$$x \xrightarrow{N} N(x) = \text{Number at a distance } x \text{ from } 0$$

$$x \xrightarrow{O} O(x) = \pm x$$

$$x \xrightarrow{P} P(x) = +x$$