

Last Name: \_\_\_\_\_  
First Name: \_\_\_\_\_

Date: \_\_\_\_\_  
Grade 9  
Term 1 Practice Test

### Numbers

1) Determine which set ( $\mathbb{N}$ ,  $\mathbb{Z}$ ,  $\mathbb{Q}$ ,  $\mathbb{Q}'$ ) best describes each number.

a. $-3 \in$ _____	b. $0.25 \in$ _____
c. $\sqrt{5} \in$ _____	d. $\pi \in$ _____

2) Determine if the following statements are **true** or **false**. The entire word must be written.

a. $\mathbb{N} \subseteq \mathbb{Q}$	b. $7 \in \mathbb{Q}$
c. $\mathbb{Z} \subseteq \mathbb{Q}'$	d. $5 \in \mathbb{Q}'$
e. $\mathbb{Q}' \subseteq \mathbb{N}$	f. $-\frac{6}{7} \in \mathbb{R}_*$
g. $\pi \in \mathbb{Q}$	h. $\mathbb{R}_- \subseteq \mathbb{R}$

3) Determine which of the following contains only irrational numbers.

a.  $2^{87}, \sqrt[2]{81}, 1.325-2$

b.  $\sqrt{7}, \frac{20}{5}, \pi, 5.234^0$

c.  $\sqrt{58}, \pi, 4.2319 \dots$

Answer:

\_\_\_\_\_

4) Determine which of the following contains only natural numbers

a.  $8, \frac{4}{7}, 3.24, -11$

b.  $4, -7, \frac{22}{11}, 8$

c.  $\sqrt{16}, \frac{30}{3}, 5, \frac{64}{4}$

Answer:

\_\_\_\_\_

5) Solve for the unknown variables.

(a)  $9x - 4 + 3 = 5 - 8 + 11$

Answer: \_\_\_\_\_

(b)  $5 - 3x = 19 - 9$

Answer: \_\_\_\_\_

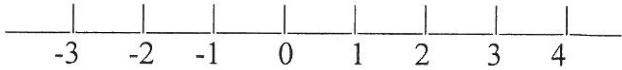
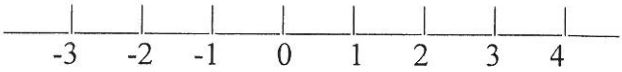
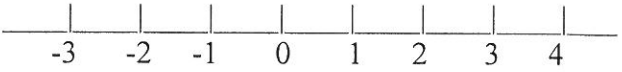

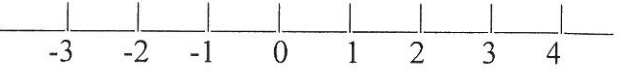

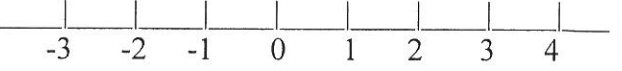
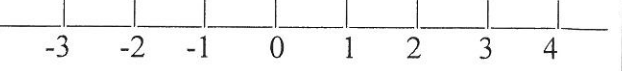
(c)  $5x - 3 = 8 + 15$

Answer: \_\_\_\_\_

(d)  $2.3 + 8.7 = -3x - 7x$

Answer: \_\_\_\_\_

6) Complete the following chart.

	Inequality	Number Line	Interval Notation
(a)	$x > -3$		
(b)			$] -\infty, -1[$
(c)	$-2 < x \leq 4$		
(d)			
(e)			$[-3, +\infty[$
(f)			
(g)	$-1 < x \leq 0$		
(h)			$]0, 2]$