



#1-

a. -5

integer

b. 25

Natural

c.  $-\sqrt{5}$

irrational

Property	Addition	Multiplication
Closure	$a+b$ is a real #	$ab$ is a real #
<u>Commutative</u> (Order)	$a+b = b+a$ $3+7 = 7+3$	$ab = ba$ $3(7) = 7(3)$
<u>Associative</u> (Grouping)	$(a+b)+c = a+(b+c)$ $(1+2)+3 = 1+(2+3)$	$(ab)c = a(bc)$ $(1 \cdot 2) \cdot 3 = 1(2 \cdot 3)$
<u>Distributive</u>	$a(b+c) = ab+ac$ $3(x+4) = 3x+12$	

#2 -

$$a. 3 \cdot 8 = 8 \cdot 3$$

Comm. ( $\times$ )

$$b. 5(7+11) = 5(7) + 5(11) = 35 + 55 = 90$$

$$c. (12+20)+30 = 12+(20+30)$$

Assoc. (+)

Property	+	x
Identity	$3 + 0 = 3$	$3 \cdot 1 = 3$
Inverse	$7 + (-7) = 0$	$7 \left(\frac{1}{7}\right) = 1$ reciprocal

#4 -

a.  $-7a \rightarrow 7a$

b.  $\frac{5n}{12p} \rightarrow \frac{12p}{5n}$

$$5(11.95)$$

$$5(12 - 0.05)$$

$$60 - 0.25$$

$$= \$59.75$$