

# Optional Homework

## Chapter Test Answers

1)  $\frac{n}{6}$

2) two more than the product of -12 and t.

3)  $-(pq)^2 \div (-8)$   $p=2$   $q=4$   
 $-((2)(4))^2 \div (-8)$  parenthesis  
 $-(8)^2 \div (-8)$  exponents  
 $-(64) \div (-8)$  Mult. + Div. from left to right  
 $-\sqrt{64} \div -8$   
 $= \boxed{8}$

4) 20 more than the product of 15 and the number of classes, c.;  $15c + 20$

5)  $-20 - (-5) \cdot (-2^2)$  exponents  
 $-20 - (-5) \cdot (-4)$  multiply  
 $-20 - 20$  subtract  
 $= \boxed{-40}$

6)  $\left(-\frac{1}{4}\right)^3 = \left(-\frac{1}{4}\right)\left(-\frac{1}{4}\right)\left(-\frac{1}{4}\right)$   
 $= \left(\frac{1}{16}\right)\left(-\frac{1}{4}\right)$   
 $= \boxed{-\frac{1}{64}}$

7)  $-\frac{7ab}{a}$ ,  $a \neq 0$   
 $-7b$   $\frac{a}{a} = 1$

8)  $-|-25|$   
 $(-1)\sqrt{25}$   
 $= \boxed{-25}$

9)  $\sqrt{\frac{16}{25}} = \boxed{\pm\frac{4}{5}}$

10) a) For all real numbers  $a$  and  $b$ ,  $a \cdot b$  is equivalent to  $b \cdot a$ . True

b) For all real numbers  $a$  and  $b$ ,  $a(b \cdot c) = ab \cdot c$

False

~~$3(2 \cdot 5) = 3(10) = 30$~~  and  $3(2) \cdot 3(5) = 6 \cdot 15 = 90$

11)  $4 + 3x = -2y$   
 $4 + 3(2) = (-2)(-5)$   
 $4 + 6 = 10$   
 $10 = 10$

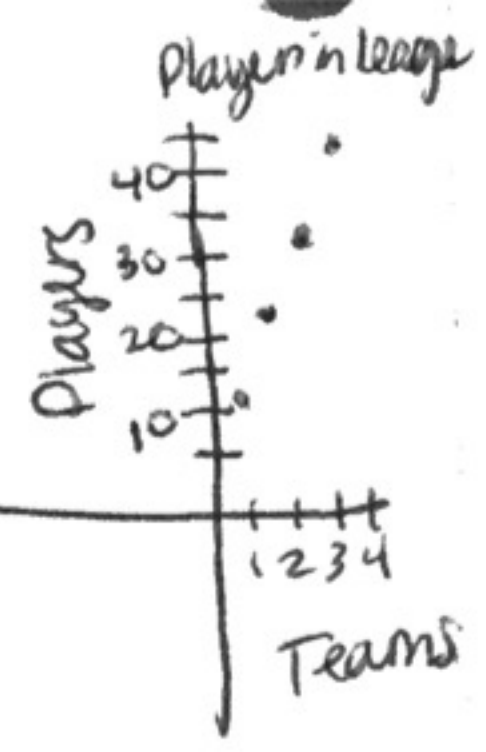
yes  $(2, -5)$  is a solution.

12)  $-\frac{14}{5}, -\frac{7}{8}, -\frac{13}{16}, \frac{7}{4}$

13) Players in Soccer League

Number of Teams	1	2	3	4
Players in league	11	22	33	44

$p = 11t$



14)  $5x^2 - x^2$   
 $5x^2 - 1x^2$   
 $= 4x^2$

15)  $12 \div (-\frac{3}{4})$  multiply by reciprocal

$\frac{12}{1} \rightarrow -\frac{4}{3} = \frac{-48}{3} = -16$

16)  $-(-2 + 6t) = +2 - 6t = 2 - 6t$   
 or  $-6t + 2$

$$17) -3[b - (-7)]$$

$$-3[b + 7]$$

$$\boxed{-3b - 21}$$

19) a) Distributive Property

2) b) Associative Property of Addition

$$21) -3 \cdot 5 + -9 \div 4 + 32$$

$$-3 \cdot 5 + -9 \div 4 + 9$$

$$-15 + -9 \div 4 + 9$$

$$-15 + -2.25 + 9$$

$$-15 - 2.25 + 9$$

$$-17.25 + 9$$

$$= \boxed{-8.25}$$

Division was performed before addition.