

DHW Check

Box 3: Cumulative Review # 5

Box 4: Cumulative Review #12

Go to my weebly to begin checking your answers

Review Homework Answers

$$\begin{aligned} 1) \quad & 5 \cdot 5 - 2 \cdot 6 - 5 \\ & \checkmark 25 - 2 \cdot 6 - 5 \\ & 25 - \checkmark 12 - 5 \\ & \checkmark 13 - 5 \\ & \boxed{8} \end{aligned}$$

$$\begin{aligned} 2) \quad & ((7 - (1 + 1)) \cdot 5) \div 5 \\ & ((7 - \checkmark 2) \cdot 5) \div 5 \\ & (\checkmark 5 \cdot 5) \div 5 \\ & \checkmark 25 \div 5 \\ & \boxed{5} \end{aligned}$$

3) 5^3

4) $3+10$

5) The quotient of 18 and a number x

6) A number, a , less than 20

7) $-9K - 3K$ *Combine like Terms

$-12K$

Exponent of 1/3/1/2

$5 + (4-5) \times 8$

$5 + 4 - 8$

$5 + 1$



Exponent of 1/2/1/2

$(5-1) - 5 - (0-1)$

$$8) \quad x - 5 + 4 + 4x$$

$$1x + 4x - 5 + 4$$

$$\boxed{5x - 1}$$

$$9) \quad -9(x - 5)$$

$$\boxed{-9x + 45}$$

$$10) \quad 10(1 + 3v)$$

$$\boxed{10 + 30v}$$

$$= 30v + 10$$

$$11) \quad -3(1 - 3n) - 5$$

$$\boxed{-3 + 9n - 5}$$

$$\boxed{9n - 8}$$

$$12) 5K - 2(-3 - K)$$

$$5K + 6 + 2K$$

$$\boxed{7K + 6}$$

$$13) 1 - (-2)$$

$$1 + 2$$

$$\boxed{3}$$

$$14) 5 - (-8)$$

$$5 + 8$$

$$\boxed{13}$$

$$15) 3 - (-4) + 2 \quad \text{*left to right!}$$

$$3 + 4 + 2$$

$$7 + 2$$

$$\boxed{9}$$

$$16) (-6) - 7 - (-2) \quad \text{*left to right!}$$

$$-6 - 7 + 2$$

$$-13 + 2$$

$$\boxed{-11}$$

$$17) -25 \div -5$$
$$= \boxed{5}$$

$$19) -4 \cdot -7$$
$$= \boxed{28}$$

$$18) -90 \div -9$$
$$= \boxed{10}$$

$$20) 7 \cdot -6$$
$$= \boxed{-42}$$

$$21) -3(7a-5) + 3(8a+4)$$
$$= -21a + 15 + 24a + 12$$
$$= \boxed{3a + 27}$$

$$22) 7(-8m-1) + 3(9+m)$$
$$= -56m - 7 + 27 + 3m$$
$$= \boxed{-53m + 20}$$

Notes Solving One-step Equations

We use inverse operations and equality properties to solve equations.

Inverse operations undo each other.

addition \rightarrow subtraction

multiplication \rightarrow division

***Equality properties are true for all real numbers.

Addition Property of Equality - If $a = b$, then $a + c = b + c$

Subtraction Property of Equality - If $a = b$, then $a - c = b - c$

Multiplication Property of Equality - If $a = b$, then $ac = bc$, $c \neq 0$

Division Property of Equality - If $a = b$, then $a/c = b/c$, $c \neq 0$

To solve equations, we get the variable by itself on one side

Steps to solving equations

- 1) Locate the variable
- 2) Simplify if possible (get one sign in front of each term)
- 3) Determine what is happening to the variable
- 4) Use inverse operations to undo what is happening
- 5) Check your answer

Find the variable (letter) in the equation.

Make sure every term has only ONE sign in front. **If not, make ONE sign**

Complete the inverse operation:

Addition \longleftrightarrow Subtraction
Multiplication \longleftrightarrow Division

GOAL for solving ALL equations: Isolate the variable on one side of the equal sign.

x = _____

Guided Practice

1) $n + 12 = 4$

$$n + 12 - 12 = 4 - 12 \quad (\text{subt. prop.})$$

$$n = -8$$

2) $4x = 36$

$$\frac{4x}{4} = \frac{36}{4} \quad (\text{div. prop.} =)$$

$$x = 9$$

3) $-32 = x + (-20)$

$$-32 = x - 20$$

$$-32 + 20 = x - 20 + 20 \quad (\text{add. prop.})$$

$$-12 = x$$

4) $x - (-16) = 44$

$$x + 16 = 44$$

$$x + 16 - 16 = 44 - 16 \quad (\text{subt. prop.})$$

$$x = 28$$

$$5) \frac{n}{10} = 13$$

$$\frac{n}{10} \cdot 10 = 13 \cdot 10 \quad (\text{mult. prop.})$$

$$n = 130$$

$$6) \frac{-1}{5} y = -20$$

1st way

$$-5 \cdot \frac{-1}{5} y = -5 \cdot -20$$
$$y = 100$$

(mult. prop.)

2nd way

$$-\frac{1}{5} y = -20$$
$$\frac{-\frac{1}{5} y}{-\frac{1}{5}} = \frac{-20}{-\frac{1}{5}}$$

(div. prop.)

$$y = \frac{-20}{1} \div -\frac{1}{5}$$
$$y = 100 \quad y = \frac{-20}{1} \cdot -\frac{5}{1}$$

Group Practice

Ex. 1)



$$x+3=10$$

$$x+3-3 = 10-3 \text{ (subt. prop.=)}$$

$$x = 7$$



Check:

Word Problems:

Ex. 2)

Susie has 3 pencils. Her friend gave her some more pencils for her birthday. Now Susie has a total of 5 pencils. How many pencils did her friend give her for her birthday?



$$\begin{aligned}x + 3 &= 5 \\x + 3 - 3 &= 5 - 3 \quad (\text{subt.}) \\x &= 2 \quad (\text{prop.})\end{aligned}$$



Group Practice:

Ex. 3



$$x-2=5$$

$$x-2+2=5+2 \text{ (add. prop. =)}$$

$$x=7$$



Check:

Group Practice:

Ex. 4)

$$x - 5 = -2$$



$$x - 5 + 5 = -2 + 5 \text{ (add. prop. } \Rightarrow)$$
$$x = 3$$



Check: