

BUTCHER- TECHNICAL MATH B – 2nd PERIOD – OFF-SITE LEARNING PACKET DAY 1

Instructor: Nancy Butcher

Date: Day 1

Program/Class: Tech Math B

Period: 1,2,3

State Indicator/Competency: Analyze proportional relationships and use them to solve real-world and mathematical problems.

Instructional Objective(s):

- Students will be able to solve proportions with 80% accuracy.

Student Materials: Off-Site Learning Packet Day 1, pencil, calculator

Method of Instruction: Independent

Activities:

Off-Site Learning Packet Day 1

Vocabulary:

Ratio – a comparison of two numbers by division

Proportion – an equation stating that two ratios are equal

In a proportion, the cross products are equal.

Ex. 1) Solve each proportion.

a. $\frac{y}{12} = \frac{77}{84}$

$$84y = 77 \times 12$$

$$84y = 924$$

$$y = 11$$

b. $\frac{15}{x} = \frac{2.5}{7}$

$$2.5x = 15 \times 7$$

$$2.5x = 105$$

$$x = 42$$

Ex. 2) $\frac{4}{6} = \frac{3}{x+2}$

$$4(x+2) = 3 \times 6$$

$$4x + 8 = 18$$

$$4x = 10$$

$$x = \frac{10}{4} = 1 \frac{1}{2}$$

Assessment: Worksheet 1: Solving Proportions (10 points)

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Name _____ Per _____

Solve each proportion Part 1

1) $\frac{4}{3} = \frac{5}{v}$

2) $\frac{p}{6} = \frac{8}{7}$

3) $\frac{2}{4} = \frac{4}{n}$

4) $\frac{2}{a} = \frac{3}{8}$

5) $\frac{8}{4} = \frac{x}{3}$

6) $\frac{9}{x} = \frac{4}{2}$

7) $\frac{7}{x} = \frac{3}{10}$

8) $\frac{9}{3} = \frac{8}{x}$

9) $\frac{6}{v} = \frac{8}{3}$

10) $\frac{8}{6} = \frac{a}{9}$