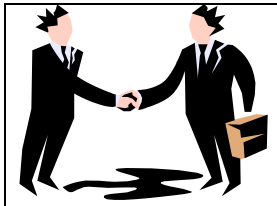


Activity H.2: You've Got a Deal

Special Note: This game reinforces concept of equivalent ratios.

Learning Objectives:

1) Calculate equivalent ratios

Examples of Skills Accomplished:

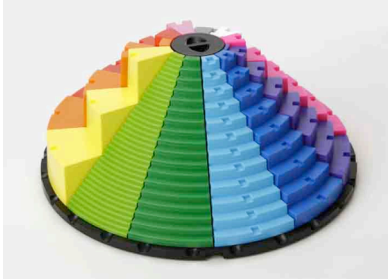
1) Equivalent ratios for 4:7 are 8:14, 12:21, 16:28 and so on

Setup:

1) Put staircases in counterclockwise sequence 1x → 12x.
2) Using one foam card, place the tokens numbered 1 thru 16 in the treasure trove.
3) Use a timer. We suggest 2 minutes as a starting point, but increase or decrease the time allowed as appropriate.

Maximum Number of Players for Small Group Activities: Two teams of up to three players each

Players Positions: Standing



Game Objectives: Capture as many tokens as possible by calculating and then finding all equivalent ratios to the pair of tokens drawn from the treasure trove, within the time limit.

1) Put multiples on the mountain.
2) Each team draws a token from the treasure trove. The team with the highest number goes first. Return the tokens to the treasure trove.
3) The first team selects two tokens from the treasure trove, representing a ratio. They place the ratio on the tabletop in front of them. Working together they calculate one specific equivalent ratio (which must be in the same order they put the tokens on the table top). You say, "You've got a deal" if the ratio proposed is equivalent. Say "No deal" if it is not.

Hints:

- Students may multiply or divide the numerator and the denominator by the same number to find an equivalent ratio.
- Students may collect the tokens for the equivalent ratios, anywhere on the mountain.

a. If it is a deal, the team collects all token pairs that represent that specific equivalent ratio. b. If it is not a deal, they forfeit the 2 tokens (from the treasure trove) and lose their turn. Forfeited tokens are set aside. 4) For example if a team picked the tokens 4 and 7 they may propose 8:14 as an equivalent ratio. You say "You've got a deal". They capture two pairs of 8:14 off the mountain (finding the number 8 on the 2x, 4x or 8x staircase and number 14 on the 2x and the 7x staircase). 5) After the team has collected all the tokens they found for the first equivalent ratio, they may propose another equivalent ratio, and proceed as before. For example they could propose 16 to 28. You say "You got a deal" and they capture three pairs (finding the number 16 on the 2x, 4x, and 8x staircases and finding the number 28 on the 2x, 4x, and 7x staircases). They continue until they cannot build any more equivalent ratios for 4:7. Of course they can propose 4:7 as an equivalent ratio and collect those pairs also. 6) When they have exhausted all equivalent ratios, or time is up, whichever comes first, their turn is over. The next team begins their turn. 7) At the beginning of any turn, the team may decide to continue with the ratio drawn by their opponent in the previous turn (whether forfeited or not), or select a new ratio from the treasure trove. 8) When there are no more tokens to draw from the treasure trove, the game is over. The team counts up the pairs of tokens they captured. The team with the most pairs wins.	• When the treasure trove is empty, the next team may still elect to use the last ratio drawn if not all equivalent ratios have been identified/collected.
Observe and Assess: 1) How accurately the teams compute equivalent ratios and whether they identify all possible ratios. 2) Whether they use good strategy in making the decision to draw a new ratio or continue with their opponent's ratio (using probability with regards to tokens remaining in the treasure trove and unclaimed equivalent ratios).	

Group Discussion & Review of Findings: 1) N/A	
Transition to Paper: 1) Assign the reproducible as either class work or homework.	

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Reproducible

Name: _____ Date: _____

Complete the following ratio tables:

1)

Number of cans	6	12	30	36
Number of six packs	1	2	5	6

2)

Cups of rice	1	2	4	6
Cups of water	2	4	8	12
Number of Servings	4	8	16	24

3) Find the value of x to make the ratios equivalent.

a. 40/10 = x/5 x= 20

b. 7/x = 49/56 x = 8

c. 3/x = 12/48

4) Are these ratios equivalent? Write Yes or No.

a. 6/8 and 3/4? Yes

b. 32 to 40 and 4 to 8? No

c. 5/7 and 14/10? No