

DISCOVERY ACTIVITY

Design for 5 groups of 3

What will we need with 5 groups each with different package deals?

Group 1= 17 small packages Group 2=15 small packages Group 3=18 small packages

Group 4= 7 small packages Group 5=8 small packages

Altogether=65 small packages...

5 plastic containers, 5 nicely wrapped packages and 5 packages wrapped in recycled paper.

-BOXES/PAPER BAGS will be wrapped to ensure an element of surprise.

-Package the Boxes/Paper bags differently...i.e. One in plastic, One wrapped beautifully, and One in recycled paper.

-There will be different price schemes for each group but the result of a unit price will always be \$1.

-Each groups price schemes will be color coded, i.e. group 1-green, group 2-orange,...for ease of organization.

-When groups have completed each calculation, they will write their result on a graph on the board. This is only to show that they have completed the activity and to make sure they all have the correct answer. However, it is best to catch those who did not get \$1 for each deal before they arrive at the board.

	G1: Green	G2: Yellow	G3: Orange	G4: Pink	G5: White
Deal 1 (plastic)					
Deal 2 (Xmas wrap)					
Deal 3 (recycled paper)					

All \$1-Coincidence?

NOTE: If students are having trouble getting \$1 as the final answer, you do not need to move on. Just have the green group go to the yellow groups table, yellow go to orange, pink go to white and white go to green to try with different numbers!

-Students decide on one of the deals to purchase (from their color group). They can open the packages of that sale. It could be a special prize! Or, it could be kidney beans! Could be chocolate! Could be tea bags! Why did you choose your deal? Packaging? Quantity?

Differentiated learning...The advantage of doing this with 5 different package prizes...If Ss are having difficulty, they could move to a new group and figure out the other group's equations...They could do all 5 and then choose the package from the final group to open! This provides more scaffolding...ie. a choice if students need more practice before going to the next activity...

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SEE group deals below with answer key

Group 1:(Green) How much is it for one unit with each deal?

Deal 1: \$10 for ten items.

Deal 2: \$1.50 each. Buy 2 and get 1 free.

Deal 3: \$2.00 each. Buy 5 and get 50% off.

Calculation

Deal 1:  $\$10 \div 10 = 1 \text{ dollar}$

Deal 2:  $\$1.50 \times 2 = \$3.00$

$\$3.00 \div 3 = 1 \text{ dollar}$

Deal 3:  $\$2.00 \times 5 = \$10.00$

$\$10.00 \div 2 = \$5.00$  or  $\$10 \times 50\% = \$5.00$

$\$5.00 \div 5 = 1 \text{ dollar}$

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Group 2: (Yellow) How much is it for one unit with each deal?

Deal 1: \$5 for five items.

Deal 2: \$1.50 each. Buy 2 and get \$1 off.

Deal 3: \$4 each. Buy 8 and get 75% off.

Group 2: Calculation

Deal 1:  $5 \div 5 = 1 \text{ dollar}$

Deal 2:  $\$1.50 \times 2 = \$3.00$

$\$3.00 - \$1.00 = \$2.00$

$\$2.00 \div 2 = 1 \text{ dollar}$

Deal 3:  $\$4 \times 8 = \$32$

$\$32 \times .75 = 24$  or  $\$32 \times 75\% = \$24$

$$\begin{aligned} \$32 - \$24 &= \$8 \\ \$8 \div 8 &= 1 \text{ dollar} \end{aligned}$$

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Group 3: (Orange) How much is it for one unit with each deal?

Deal 1: \$3 for 3 items.

Deal 2: \$1.25 each. Buy 12 and get \$3 off at the til.

Deal 3: \$2.00 each. Buy 3 and get 50% off.

Calculation

Deal 1:  $\$3 \div 3 = 1$

Deal 2:  $\$1.25 \times 12 = \$15$   
 $\$15 - 3 = \$12$   
 $\$12 \div 12 = 1 \text{ dollar}$

Deal 3:  $\$2 \times 3 = \$6$   
 $\$6 \div 2 = \$3$  or  $\$6 \times .50 = \$3$   
 $\$3 \div 3 = \$1 \text{ dollar}$

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Group 4: (Pink) How much is it for one unit with each deal?

Deal 1: \$2 for 2 items

Deal 2: \$1.25 each. Buy 3 and save .75 cents.

Deal 3: \$ 4 each. Buy 2 and get 75% off.

Calculation

Deal 1:  $\$2 \div 2 = 1$

Deal 2:  $\$1.25 \times 3 = \$3.75$   
 $\$3.75 - .75 = \$3$

$$\$3 \div 3 = \$1 \text{ dollar}$$

Deal 3:  $\$4 \times 2 = \$8$

$$\$8 \times .75 = \$6 \text{ or } \$8 \times 75\% = \$6$$

$$\$8 - \$6 = \$2$$

$$\$2 \div 2 = 1 \text{ dollar}$$

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Group 5: (White) How much is it for one unit with each deal?

Deal 1: \$4 for 4 items.

Deal 2: \$1.20 each. Buy 4 and save .80 at the til.

Deal 3: \$2 each. Buy 2 and get 50% off.

Calculation

Deal 1:  $\$4 \div 4 = 1 \text{ dollar}$

Deal 2:  $\$1.20 \times 4 = \$4.80$

$$\$4.80 - .80 = \$4$$

$$\$4 \div 4 = \$1$$

Deal 3:  $\$2 \times 2 = \$4$

$$\$4 \div 2 = \$2 \text{ or } \$4 \times 50\% = \$2$$

$$\$2 \div 2 = 1 \text{ dollar}$$