## Unit 3 Lesson 7: The Correlation Coefficient

### 1 Which One Doesn’t Belong: Linear Models (Warm up)

#### Student Task Statement

Which one doesn’t belong?

A



B



C



D



### 2 Card Sort: Scatter Plot Fit

#### Student Task Statement

Your teacher will give you a set of cards that show scatter plots of data. Sort the cards into 2 categories of your choosing. Be prepared to explain the meaning of your categories. Then, sort the cards into 2 categories in a different way. Be prepared to explain the meaning of your new categories.

#### Activity Synthesis

A: $y=-0.83x−1.85,r=-0.61$



B: $y=-0.07x+5.63,r=-0.06$



C: $y=-0.31x+5.76,r=-0.88$



D: $y=-0.8x+6,r=-1$



E: $y=0.69x+4.49,r=0.46$



F: $y=1.43x+2.86$, $r=0.94$



G: $y=3x+2,r=1$



H: $y=-0.02x+1.64,r=-0.13$



I: $y=14.55x−36.18,r=0.95$



J: $y=-0.62x+6.52,r=-0.96$



### 3 Matching Correlation Coefficients

#### Student Task Statement

1. Take turns with your partner to match a scatter plot with a **correlation coefficient**.
2. For each match you find, explain to your partner how you know it’s a match.
3. For each match your partner finds, listen carefully to their explanation. If you disagree, discuss your thinking and work to reach an agreement.

A



1. $r=-1$
2. $r=-0.95$
3. $r=-0.74$
4. $r=-0.06$
5. $r=0.48$
6. $r=0.65$
7. $r=0.9$
8. $r=1$

B



C



D



E



F



G



H





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