



**In Class Exercises Set A**

**Arithmetic 2**

(Fractions, rates, ratios, percentages, probability)

10 minutes

- 1) If Drew and Alvin can make 8 pizza pies in 18 minutes, how many pies can they make in 1.5 hours? (Assume that they make pizza at a constant rate).
- A) 0.67  
B) 24  
C) 32  
D) 40
- 2) Lincoln Park High School recently started a breakfast nook for its faculty. Of its 150 teachers, last Tuesday 60 bought coffee in the morning, 96 bought bagels, and 24 bought both. What fraction of teachers who bought bagels did *not* buy coffee?
- A)  $\frac{1}{4}$   
B)  $\frac{4}{25}$   
C)  $\frac{2}{5}$   
D)  $\frac{3}{4}$
- 3) 36% of a number is equal to 25% of 144. What is the number?
- A) 75  
B) 88  
C) 100  
D) 207
- 4) A falcon flies along a 400 ft. road in 1.5 seconds. What is its average speed in miles per hour, rounding to the nearest hundredth? (5280 ft. = 1 mi.)
- A) 155.55  
B) 181.82  
C) 225.00  
D) 266.67



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- 5) In an Honors Pre-Calculus class, the ratio of freshman to sophomores is 1 to 3, and the ratio of sophomores to juniors is 4 to 1. If there are 19 students in the class, how many juniors are there?
- A) 3  
B) 4  
C) 10  
D) 12
- 6) Fatima earns \$13/hour, and \$13,500/year. What is the number of hours she works per week, to the nearest hour? (There are 52 weeks in a year.)
- 7) A smartphone that normally costs \$200 is on sale for 40% off. A salesman offers you 50% off the reduced price, on top of which you must pay a 5% sales tax. What is the final cost in dollars?
- 8) Winston and Khalil pay a 15% and 25% tip on their meals at McDonalds, respectively. If they tipped the same amount and Winston's meal cost \$7 before tip, how much did Khalil's meal cost before the tip?