

# Sample quiz

Math 141 - Spring 2004  
quiz # 7  
sections 7.1 - 7.4

15

NAME: Key

Seat: \_\_\_\_\_

**Partial credit is based on work shown!**

**Do not use a calculator on this quiz!**

2pts

1. a. Write 0.521 as a fraction.

$$\frac{521}{1000}$$

b. Write 0.521521521... as a fraction.

$$\frac{521}{999}$$

3pts

2. **Estimate** using compatible numbers.

Show your steps.

$$148\% \text{ of } 59 \approx 150\% \text{ of } 60$$

$$\left[ \begin{array}{l} 100\% \text{ of } 60 = 60 \\ 50\% \text{ of } 60 = 30 \end{array} \right] = \underline{\underline{90}}$$

2pts

3. **Calculate mentally** using equal additions method.

Show your steps.

$$\begin{array}{r} 29.51 + 0.07 \Rightarrow 29.58 \\ -7.93 + 0.07 \Rightarrow -8.00 \end{array}$$

$$\underline{\underline{21.58}}$$

5pts

4. **Tell whether each would be a terminating decimal** (without dividing to change the following fractions to decimals), and then explain how you can determine this.

a.  $\frac{4}{56} = \frac{1}{14}$  not terminating b.  $\frac{21}{56} = \frac{3}{8}$  terminating

Explanation, (using the theorems from section 7.1 & 7.2):

*only prime factors of 2,*

*Simplify the fraction*

*Find the prime factors of the denominator.*

*If the prime factors are only 2 and/or 5, the decimal will terminate,*

3pts

5. A recipe for peach cobbler calls for seven small peaches for 4 servings. If a large quantity is to be prepared to serve 10 people, about how many peaches would be needed? 17 or 18

Solve using a proportion and show your work.

$$\begin{array}{l} \text{peaches} \\ \text{servings} \end{array} \frac{7}{4} = \frac{x}{10}$$

$$4x = 70$$

$$x = 17\frac{1}{2} \approx 17 \text{ or } 18$$