

Quiz 7

Key

This is a two-stage quiz. During the first stage, you can use your knowledge & calculator. You have 15 min. In the second stage, you are now welcome to use your books, notes, and students in the class to retake the same quiz. You have 15 min. to write one solution (with everyone's name on it!!!) to be turned in for the group. Groups must be 2 or 3 people.

Show your work as you would for a colleague. Partial credit requires reasonable support.

1. [2] Assume that x is an integer. Put $\frac{3x+12}{6}$ in simplest terms, (if it isn't already).

$$\frac{3x+12}{6} = \frac{3(x+4)}{3 \cdot 2} = \frac{x+4}{2}$$

Start (1.5)

Answer (1.5)

(+1)

1.5 for grabbing 3 from item

2. [2] The Arctic Fox has a life span of about 5 years. Its photo height is $\frac{5}{4}$ inches. The picture is $\frac{1}{12}$ the portion of the life-size fox. What is the height of the life-size fox?



$$(\text{life size}) \left(\frac{1}{12} \right) = \frac{5}{4} \quad (1.5)$$

$$\Rightarrow \text{life size} = \frac{5 \cdot 12}{\frac{1}{12} \cdot 12} = \frac{5 \cdot 12}{1} = 15 \text{ inches}$$

Match (1.5)

divide (1.5)

divide correctly (1.5)

3. [6] Perform the operations. Write your final answers in lowest terms.

$$(a) \frac{1}{ac} + \frac{4}{a} = \frac{1}{ac} + \frac{4c}{ac} = \frac{1+4c}{ac}$$

(1.5) respect into

(1.5) common den

(1.5) add numerators

red xed (1.5)

~~get it~~

$$(b) 3\frac{1}{4} \times \frac{1}{8} = \left(\frac{12}{4} + \frac{1}{4} \right) \times \frac{1}{8} = \frac{13}{4} \times \frac{1}{8} = \frac{13}{32} = 0.40625$$

Answer (1.5)

convert to improper fraction (+1)

mult straight across (1.5)

$$(c) -2 \div \frac{4}{9} = \frac{-2}{1} \div \frac{4}{9} = \frac{-2 \div 4}{1 \div 9} = \frac{-\frac{1}{2} \times 9}{\frac{1}{9} \times 9} = \frac{-9}{2} \text{ or } -4 \text{ and } \frac{1}{2}$$

(1.5)

1 divide process (+1)

got it (1.5)