

Example #1

Malinda earns \$14/h at Safeway. For time worked above 40 h in a week, she earns time-and-a-half. How much does Malinda earn for working 48 h in a week?

Calculate in Stages:

REGULAR TIME:

$$y = 14(40)$$

$$y = \$560 \quad (1)$$

OVERTIME:

$$z = 1\frac{1}{2}(14)(8)$$

$$= \frac{3}{2}(112)$$

$$= \frac{3}{2}\left(\frac{56}{1}\right)$$

$$z = \$168 \quad (2)$$

TOTAL:

$$x = y + z$$

$$x = 560 + 168$$

$$x = \$728$$

Evaluate One Expression

$$x = 14(40) + 1\frac{1}{2}(14)(8)$$

$$= 560 + \frac{3}{2}(112)$$

$$= 560 + \frac{3}{2}\left(\frac{56}{1}\right)$$

$$= 560 + 168$$

$$x = \$728$$

A Question to try...

Amar is planting a garden to grow his own vegetables and fruit. Three quarters of his garden is made up of vegetables. The rest of his garden is for fruit. One third of the garden for fruit is used to grow strawberries. What fraction of the garden is used to grow strawberries?

PICTURE



YOU CAN SEE THE ANSWER IS $\frac{1}{12}$

$$x = \frac{1}{3} \text{ of } \frac{1}{4}$$

$$= \frac{1}{3} \times \frac{1}{4}$$

$$x = \frac{1}{12}$$

Summary of Fraction Operations

Multiplying or dividing a Fraction by a Whole Number is like multiplying fractions because:

- ① WHEN MULTIPLYING, YOU CAN WRITE WHOLE NUMBER AS A FRACTION
- ② WHEN DIVIDING, YOU CAN WRITE THE WHOLE NUMBER AS A FRACTION AND DIVIDE BY THE RECIPROCAL.

When multiplying complete fractions: MULTIPLY THE NUMERATORS &
MULTIPLY THE DENOMINATORS.

To multiply mixed numbers you need to: CONVERT THEM TO IMPROPER
FRACTIONS

To divide complete fractions: MULTIPLY BY THE RECIPROCAL OF THE
DIVISOR

To divide mixed numbers: CONVERT TO IMPROPER FRACTIONS, THEN
MULTIPLY BY THE RECIPROCAL OF THE
DIVISOR