T-MF Math Fundamentals week 24 3/5 Determine whether each is proportional. Give the equation if appropriate.

$$
y=k x
$$



$$
\begin{aligned}
& y=k x \\
& y=\frac{5}{2} x
\end{aligned}
$$

$\begin{aligned} & \text { (1.) } \\ & \times \\ & \rightarrow 10 \\ & \rightarrow 6 \\ & 4 \\ & 12\end{aligned}$
Not proportional

2.) $\frac{}{36}=\frac{75}{100} \frac{(36)(75)}{100}$
3.) $\frac{27}{45}=\frac{80}{100} \frac{(45)(20)}{100}=16$
4.) $\frac{}{24}=\frac{25}{100} \frac{(24)(25)}{100}=6$

Determine the constant of proportionality for each table. Express your answer as $\mathbf{y}=\mathbf{k x}$

## Answers

Ex) |  | Phone Sold (x) | 9 | 4 | 6 | 5 |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Money Earned (y) | 369 | 164 | 246 | 205 |

Every phone sold earns 41 dollars.

| 1) Fried raw |
| :--- |
| Pieces of Chicken $(\mathrm{x})$ 5 9 4 10 8 <br>  Price in dollars $(\mathrm{y})$ 5 9 4 10 |

$$
k=\frac{y}{x} \quad y=k x
$$

For each piece officken it costs _ dollars.

(2) | Enemies Destroyed (x) | 9 | 5 | 6 | 4 | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Points Earned (y) | 297 | 165 | 198 | 132 | 231 |

Every enemy destroyed earns __ points.

| 2 | 6 | 8 | 10 | 9 |
| :---: | :---: | :---: | :---: | :---: |
| 34 | 102 | 136 | 170 | 153 |
| met rs are travelled. |  |  |  |  |

Eva y
3) $\frac{\text { Time in minute (x) }}{\text { Distance traveled in meters (y) }}$
Every minute $\qquad$ net rs are travelled.
4)

| Tickets Sold (x) | 8 | 3 | 6 | 2 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Money Earned (y) | 112 | 42 | 84 | 28 | 140 |

Every ticket sold __ dollars are earned.

$y=41 x$
3. $\qquad$
4.

8.
5)

| Votes for Bianca (x) | 9 | 10 | 4 | 5 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Votes for Luke (y) | 198 | 220 | 88 | 110 | 66 |

For Every vote for Bianca there were $\qquad$ votes for Luke.
6)

| Glasses of Lemonade (x) | 4 | 10 | 9 | 3 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lemons Used (y) | 12 | 30 | 27 | 9 | 18 |

For every glass of lemonade there were _ lemons used.
7)

| Chocolate Bars (x) | 7 | 4 | 5 | 3 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Calories (y) | 1,869 | 1,068 | 1,335 | 801 | 2,670 |

Every chocolate bar has __ calories.
8)

| Boxes of Candy (x) | 8 | 3 | 2 | 6 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pieces of Candy (y) | 120 | 45 | 30 | 90 | 150 |

For every box of candy you get __ pieces.

## solve each problem. bird house bores o nails



A company used 420 lemons to make 70 bottles of lemonade. Write an equation that can be used to express the relationship between the total number of lemons needed (t) for each bottle of lemonade (b).
6) You can buy 10 pieces of chicken for $\$ 24.80$. Write an equation that can be used to express the relationship between the total price( t ) and the pieces of chicken (c) you buy.
7) The combined weight of 12 concrete blocks is 108.60 kilograms. Write an equation that can be used to express the relationship between the total weight $(\mathrm{t})$ and the number of concrete blocks(b) you have.
8) Wendy traveled 79.91 kilometers in 61 minutes. Write an equation that can be used to express the relationship between the total kilometers traveled $(\mathrm{t})$ and the minutes (m) it took.
9) A phone store earned $\$ 149.76$ after they sold 72 phone cases. Write an equation that can be used to express the relationship between the total money earned ( t ) and the number of cases(c) sold.
10) At a carnival it costs $\$ 166.80$ for 60 tickets. Write an equation that can be used to express the relationship between the total cost ( t ) and the number of tickets( n ) you buy.

Convert percent into a decinal


$$
34 \%=\frac{34}{100}=0.34
$$

$$
45 \%=0.45
$$

1.) $33 \%=0.33$
2.) $87 \%=0.87$
$289 \%=2.89$
3.) $151 \%=1.51$

$$
663 \%=6.63
$$

4.) $1286 \%=12.86$
5.) $05 \%=0.05$
$\begin{array}{cccc}\text { What is } 150 \% \text { of } 160 \text { ? } \\ \downarrow & \Downarrow & \downarrow & \downarrow\end{array}$

$$
\begin{array}{llll}
\downarrow & \| & \Downarrow & \downarrow \\
\times & 1.50 & * & 160
\end{array}=240
$$

$\begin{array}{cccc}\text { What is } & 350 \% & \text { of } 80 ? \\ \downarrow & \downarrow & \downarrow & \downarrow\end{array}$

$$
\begin{array}{ccccc}
\downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\
x & = & 3.50 & * & 80=280
\end{array}
$$

