Counting Beats

Warm Up:

Igor, Chynna, Courtney, Sam, and Athena are in a music room and each plays one instrument. The music room contains a piano, cello, guitar, violin, and drums.

- Courtney, Igor and Sam play instruments with strings.
- Igor, Chynna, and Athena play instruments that do not use bows.
- Courtney plays a small instrument.
- Igor does not play the piano.
- Sam plays a large instrument.
- Chynna does not play the guitar.
- Athena plays an instrument with many pieces.

What instrument does each person play?
Music is made up of notes. These notes represent pitch and the duration of a musical sound. In this lesson, we will be focusing on the duration of the musical sound.

Section I: Quarter, Half and Whole Notes.

There are different kinds of musical notes:

Very often in music, \( \uparrow \) corresponds to the number 1.

\[ \uparrow = \text{quarter note} = 1 \text{ beat.} \]

\[ \downarrow = \text{half note} = 2 \text{ beats.} \]

\[ \mathbf{\text{\circ}} = \text{whole note} = 4 \text{ beats.} \]
Question 1:

a) How many half notes does it take to make a whole note?

b) Write as a single note:

\[ \text{ } + \text{ } = \]

\( \text{ } + \text{ } \)

c) How many quarter notes does it take to make a whole note?

d) Write as a single note:

\[ \text{ } + \text{ } + \text{ } + \text{ } = \]

\( \text{ } + \text{ } + \text{ } + \text{ } \)

e) Add several quarter notes to a half note to make a whole note:

\[ \text{ } + \text{ } + \text{ } + \text{ } = \]

\( \text{ } + \text{ } + \text{ } + \text{ } \)

\[ \text{ } + \frac{3}{4} \text{ } \]
f) How many quarter notes are there in a half note?

g) Write as a single note:

\[ \text{\begin{tikzpicture}
    \draw (0,0) -- (0,.5) -- (1,.5) -- (1,0) -- (0,0);
    \draw (2,0) -- (2,.5) -- (3,.5) -- (3,0) -- (2,0);
\end{tikzpicture}} + \text{\begin{tikzpicture}
    \draw (0,0) -- (0,.5) -- (1,.5) -- (1,0) -- (0,0);
    \draw (2,0) -- (2,.5) -- (3,.5) -- (3,0) -- (2,0);
\end{tikzpicture}} = \text{\begin{tikzpicture}
    \draw (0,0) -- (0,.5) -- (1,.5) -- (1,0) -- (0,0);
    \draw (2,0) -- (2,.5) -- (3,.5) -- (3,0) -- (2,0);
\end{tikzpicture}} \]

h) Explain the following picture:
Question 2:

a. \[ \text{ } = \text{ } + \]

b. \[ = \text{ } + \]

c. \[ = \text{ } + \text{ } + \]

d. \[ + = \text{ } + \text{ } + \]

e. \[ = \text{ } + \text{ } + \]
f. 
\[ \text{\textbullet} + \text{\textbullet} + \text{\textbullet} = \text{\textbullet} + \text{\textbullet} \]

g. 
\[ \text{\textbullet} + \text{\textbullet} = \text{\textbullet} + \text{\textbullet} + \text{\textbullet} + \text{\textbullet} + \text{\textbullet} + \text{\textbullet} + \text{\textbullet} \]

h. 
\[ \text{\textbullet} + \text{\textbullet} = \text{\textbullet} + \text{\textbullet} + \text{\textbullet} + \text{\textbullet} + \text{\textbullet} \]
Section II: Dotted Notes

\[ \text{\textbf{dotted half note}} \]

\[ \text{\textbf{dotted half note}} = \text{\textbf{quarter note}} + \text{\textbf{quarter note}} + \text{\textbf{quarter note}} \]

In music, \( \text{\textbf{dotted half note}} \) is called a \textit{dotted half note}.

Question 1:

a. How many beats are in \( \text{\textbf{dotted half note}} \)?

b. Compared to the \textit{half note}, how many more beats does the \textit{dotted half note} have?
Question 2:

\[ \text{O} = \text{\(\frac{3}{4}\)} \text{+ \(\frac{1}{4}\)} \]

\[ \text{O} \cdot = \text{\(\frac{3}{4}\)} + \text{\(\frac{1}{4}\)} + \text{\(\frac{1}{4}\)} \]

a. How many beats are in \(\text{O} \cdot\)?

b. Compared to the \textit{whole note}, how many more beats does the \textit{dotted whole note} have?

Question 3:

How does the dot affect the length of notes?
Question 4:

a)
\[\text{}+\text{}\]

b)
\[\text{.}+\text{}\]

c)
\[\text{.}+\text{}\]

d)
\[\text{.}+\text{}\]

e)
\[\text{.}+\text{}\]
f) \[ \begin{array}{c}
\circ \circ + \circ \circ = \circ + \circ + \end{array} \]

g) \[ \begin{array}{c}
\dot{\circ} + \circ = \circ + \begin{array}{c}
\square \\
\square
\end{array} + \begin{array}{c}
\square \\
\square
\end{array} \end{array} \]
Challenge Question:

a. What is the name of the note above?

b. How many beats are contained in the note above (Write as a number)?
c. Fill in the notes:

Twin-kle, Twin-kle, Little Star.

How I Wonder What You Are.