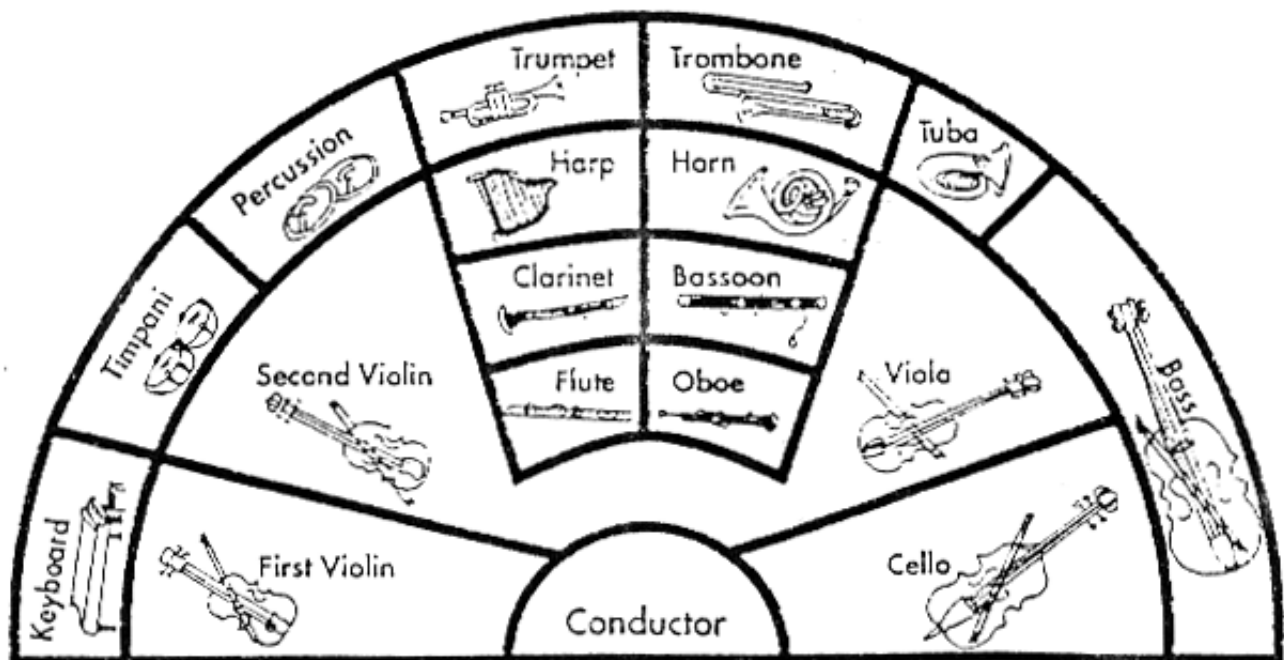


THE SYMPHONY ORCHESTRA

TODAY'S SYMPHONY ORCHESTRA

A typical symphony orchestra features between 55 and 105 musicians.



Name _____

Room Number _____

INSTRUMENT SECTIONS

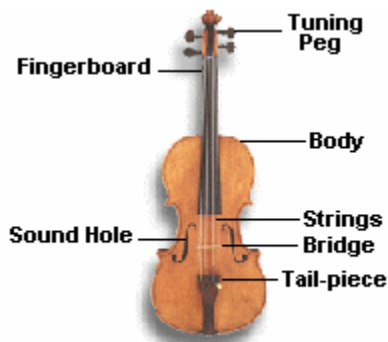
<i>Strings</i>	<i>Woodwind</i>	<i>Brass</i>	<i>Percussion</i>
Violin	Flute	Tuba	Triangle
Viola	Piccolo	French horn	Bells
Lute	Clarinet	English horn	Xylophone
Cello	Bass clarinet	Trumpet	Bass drum
Bass viol	Oboe	Cornet	Timpani
Harp	Saxophone	Bugle	Bongo
Guitar	English horn	Baritone	Gong
Mandolin	Bassoon	Trombone	Marimba
Banjo	Contrabassoon		Piano

*The above illustrates examples of each section of instruments, but it is not a complete list of every instrument that falls into each category.

STRINGS

The string section consists of four main instruments - the violins, violas, cellos and double basses. In an orchestra, the violins are usually divided into 2 or occasionally 3 sections, and the double basses may sometimes share the same score as the cello.

The string instruments all share the same design. Four (or sometimes 5 for the double bass) strings of metal, nylon or gut are stretched across a hollow, wooden body. At one end they are affixed to the tuning-pegs, across the bridge to the other end where they are attached to the tailpiece. More than 200 strands of horsehair are stretched taut across a wooden stick to form the bow.



Parts of a generalized string instrument.

Sound is produced in three ways - by drawing the bow across the strings (arco), plucking the strings with the player's fingertips (pizzicato), or tapping the strings with the wood of the bow (col legno). The pitch depends on the length, thickness and tension of the vibrating portion of the string. The player shortens the strings by using his fingers to press them down on the fingerboard, so that only the length from the stopped point to the bridge will vibrate.

When playing in a group, the individual sounds of the string instruments tend to blend together into a harmonious whole.

Violin - Strings tuned to G, D, A, E

Viola - Strings tuned to C, G, D, A

Cello - Strings tuned to C, G, D, A, one octave below the viola

Double Bass - tuned to E, A, D, G (There is sometimes an extra string tuned to the lower C or B below E. It is also the only string instrument tuned in perfect 4th instead of 5^{ths}.)

WOODWIND

So named because the instruments in this family were made of wood, their basic material has changed over the years to incorporate more modern materials such as plastic and metal. The modern orchestra usually makes use of the 'double wind' configuration, usually with 2 flutes, 2 oboes, 2 clarinets and 2 bassoons to which are added a piccolo, cor anglais, double bassoon and sometimes a bass clarinet.

The designs of these instruments are basically the same - a hollow tube along which there is a series of holes, covered by keys. A system of springs and levers allows the holes to be opened and closed. Sound is produced by the vibration of the air column within the instrument. This is achieved in three different ways :

(1) Edge-tone : Used only for the flute and piccolo, a stream of air is directed by the player edgewise across a hole, and this stream is divided by the tapered further edge, causing the air column within the instrument to vibrate. This produces anywhere from a breathy note to a clear, bell-like tone.

(2) Single reed : Found in the clarinet only, the single reed is made of cane shaved extremely thin at one end. This reed fits over a rectangular hole at the mouthpiece, and drives the vibration of the air column when triggered by the player's breath.

(3) Double reed : The rest of the woodwind instruments (i.e. oboe,

bassoon) have a double reed, which is really nothing but two thin strips of cane bound tightly together. These reeds vibrate against each other when the player blows, causing the air column to vibrate as well.

This section is placed in the center of the orchestral layout as the instruments are frequently given many solo parts to play. This, in turn, is due to the fact that woodwind instruments tend to stand out among their counterparts.

BRASS

Like the woodwinds, the name of this section is derived from the original metal used to make the instruments, however today pure brass instruments are rare. In the modern orchestra we can usually find 4 horns, 3 trumpets, 2 trombones and 1 bass trombone, and a tuba.

The distinguishing features of brass instruments are their flaring bell and their valves. The valve system was developed in 1815 to enable players to quickly change the length of the vibrating air column and thus the pitch of the note produced, instead of having to use more cumbersome solutions such as the olden-day crooks (lengths of metal tubing).

Sound is produced, as for all wind instruments, through the vibration of air in the hollow metal tube. This is achieved by vibrating the lips as the player blows, in a fashion somewhat similar to the use of a double reed. The pitch can be affected not only by the length of tubing, but also by the tension of the player's lips - the tighter the player's lips, the higher the note.

The timbre of brass instruments is unique, ranging from the brilliant fanfare of the trumpets to the sonorous bellows of the tuba. This is to some extent influenced by the bore and the bell. Apart from the construction of the instrument, players may also insert a mute which muffles the sound produced, or, if the player continues to attempt to force the sound out, creates a metallic, menacing tone.

PERCUSSION

The section with the greatest variety of instruments. Percussion instruments can be pitched or non-pitched, and they are played in a variety of ways, from being struck with mallets all the way to being banged together or even shaken. In fact, anything which makes noise can theoretically play a part as a percussion instrument. The Russian composer Tchaikovsky even used a cannon in his 1812 Overture.

Pitched instruments are usually struck with a variety of mallets, and they range from the monstrous set of kettle drums to the keyboard-like glockenspiel. Their timbres, too, range from the thunderous beat of the timpani to the delicate silvery tones of the celesta. Their definite pitch makes it possible for these instruments to even play melodies, and indeed, several solos have been written for the xylophone, such as Kabalvesky's 'Gallop' from *The Comedians* .

The other percussion instruments, however, are restricted only to rhythms. But as more modern pieces show, this does not hinder them at all! In fact, the wide range of available sounds can be manipulated in many ways to produce new, interesting blends of tone colors.

INSTRUMENT FAMILY PUZZLE

Look at each instrument name below and decide which family it belongs to. Using the following code, write the correct letter next to each instrument:

B = BRASS S = STRING P = PERCUSSION W = WOODWIND

- | | |
|-------------------------|------------------------|
| _____ 1. Snare drum | _____ 16. Trumpet |
| _____ 2. Tuba | _____ 17. Clarinet |
| _____ 3. Cello | _____ 18. Triangle |
| _____ 4. Flute | _____ 19. Violin |
| _____ 5. Guitar | _____ 20. Gong |
| _____ 6. French horn | _____ 21. Oboe |
| _____ 7. Castanets | _____ 22. Tambourine |
| _____ 8. Contrabassoon | _____ 23. English horn |
| _____ 9. Viola | _____ 24. Maracas |
| _____ 10. Saxophone | _____ 25. Piccolo |
| _____ 11. Woodblock | _____ 26. Bongo drum |
| _____ 12. Piano | _____ 27. Harp |
| _____ 13. Bass viol | _____ 28. Trombone |
| _____ 14. Xylophone | _____ 29. Cymbals |
| _____ 15. Bass clarinet | _____ 30. Bassoon |

BE A STAGE MANAGER

It's almost time for the concert to begin. These four orchestra members cannot perform with the symphony unless you arrange for them to get the following items: music stand, chair, reed and bow. Draw a picture of the item to whom it will be delivered.

VIOLA PLAYER



1.

DOUBLE BASS PLAYER



2.

FLUTIST



3.

OBOIST



4.

BEST IN THE WORLD

Use the space below to draw a picture of instrumentalists or vocalists performing your favorite type of music.

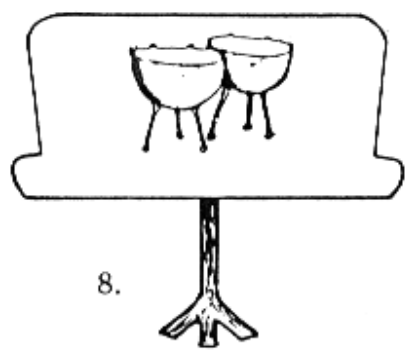
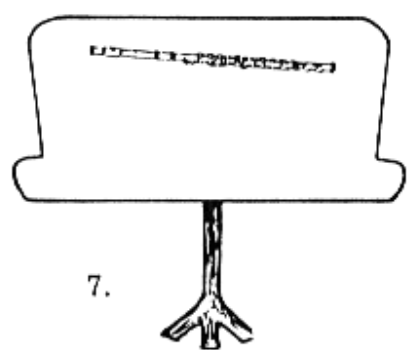
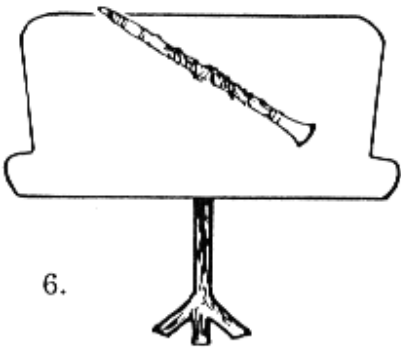
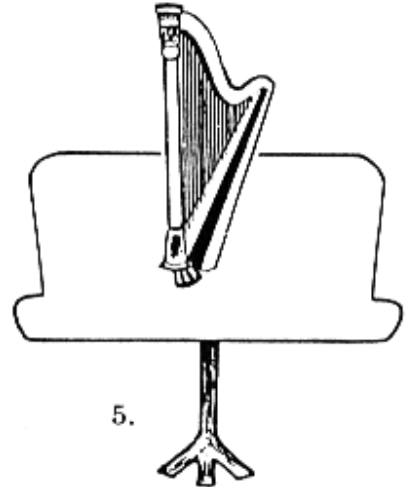
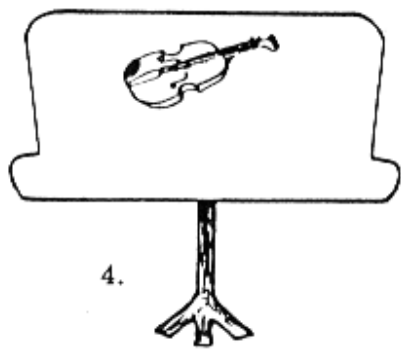
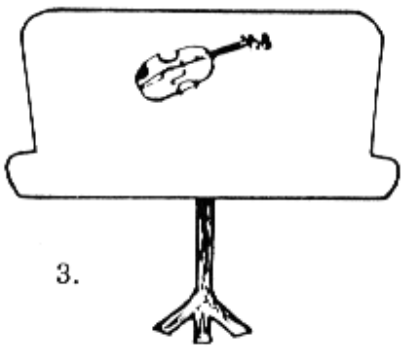
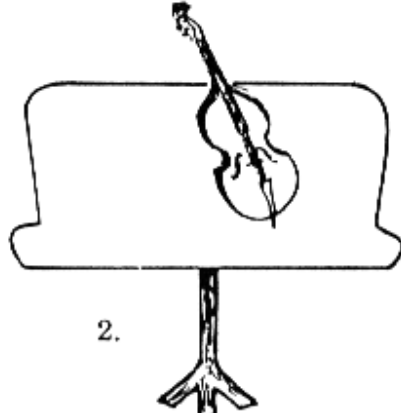
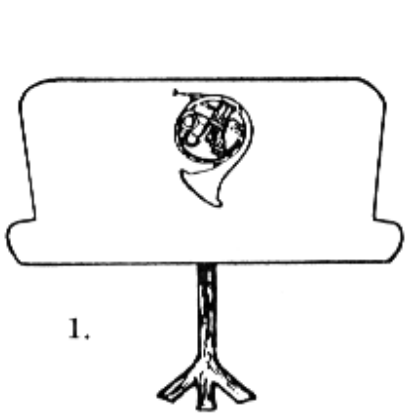
My most favorite type of music in the whole world is:

A large, empty rectangular box with a thick black border, intended for drawing. A horizontal line from the text above enters the box from the left side.

DISTRIBUTE THE MUSIC

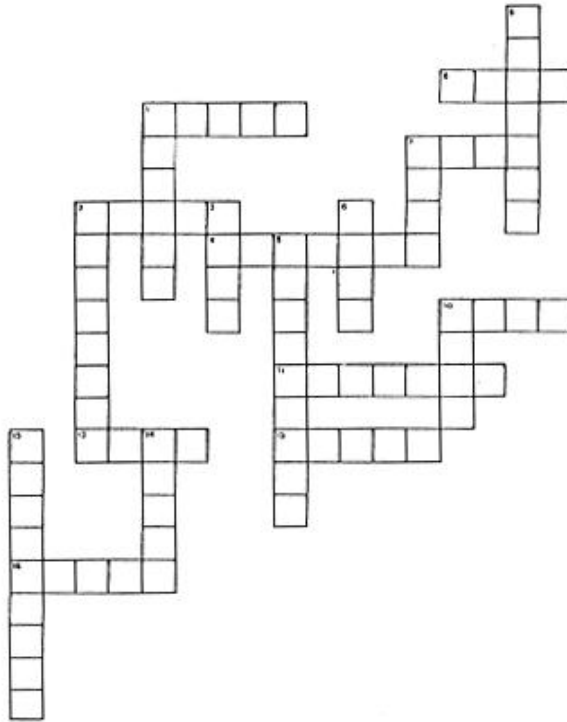
The music librarian has left for the post office to pick up a new orchestral score. Rehearsal is about to begin. You have volunteered to pass out the music. To help you do this job, write the name of the instrument in the music stand by its matching picture. The names of the instruments pictured below are listed alphabetically.

- cello
- clarinet
- flute
- French horn
- harp
- kettledrums
- viola
- violin



INSTRUMENT CROSSWORD PUZZLE

Read the clues at the bottom of this sheet and fill in the crossword puzzle.



ACROSS

1. Instrument slightly larger than a violin
2. Stringed instrument played between the knees
4. Large woodwind instrument called "Clown of the Orchestra"
7. Instrument of the angels
8. Bongo or snare _____
10. Lowest stringed instrument
11. Highest woodwind instrument
12. Lowest brass instrument
13. Keyboard instrument
16. Chopin's major instrument

DOWN

1. A fiddle
2. Woodwind instrument that represented the cat in *Peter and the Wolf*
3. Woodwind instrument that looks like the clarinet
5. The only woodwind instrument that is "gold" or "brass"
6. Oriental percussion instrument
7. French or English _____
9. Instrument similar to a cornet
10. A metal percussion instrument
14. Dixieland stringed instrument
15. Instrument played with mallets

DELIVER THE GOODS

Each of these people placed an order at the "We've Got It Music Store." You are in charge of the delivery. Finish drawing these pictures to show the people using the items you delivered.

Goods to be delivered: strings, baton, bugle, staff paper

GUITARIST



1.

CONDUCTOR



2.

COMPOSER



3.

BRASS PLAYER



4.

INSTRUMENT WORDSEARCH

Look at the instrument names at the bottom of this sheet and find each one in the wordsearch below. The words can be found either horizontally or vertically.

A V I O L A R C E L L O T S P
B I C E I G E H D G F B A S S
J O K L M U C P I A N O N O P
F L U T E I O I Q R S E T F C
U I V R W T R C X G Y Z W R Y
A N T U B A D C E O X C O E M
B C D M A R E O F N Y L O N B
H A R P S G R L H G L A D C A
I J K E S L B O N G O R B H L
M N O T O R G A N B P I L H B
P Q T R O M B O N E H N O O A
T R I A N G L E R L O E C R N
C A S T A N E T S L N T K N J
T S A X O P H O N E E U V W O
X A N D S Y N T H E S I Z E R

VIOLA	VIOLIN	XYLOPHONE
CELLO	OBOE	ORGAN
BASS	PICCOLO	CYMBAL
PIANO	TRUMPET	SYNTHESIZER
FLUTE	TUBA	HARP
BANJO	BONGO	WOODBLOCK
GONG	TROMBONE	BASSOON
TRIANGLE	SAXOPHONE	CLARINET
BELL	CASTANETS	GUITAR
	FRENCH HORN	RECORDER

Black Socks

Black socks, they never get dirty.
The longer you wear them, the stronger they get.
Sometimes I think I should launder them,
Something keeps telling me,
“Don’t wash them yet—not yet—not yet!”

This song is everybody’s favorite!

The musical notation is written on a single treble clef staff in 8/8 time. It consists of three lines of music. The first line contains measures 1, 2, and 3, with circled numbers 1, 2, and 3 above the first, second, and third measures respectively. The second line contains measure 4, with a circled number 4 above the first measure. The third line contains the final measures of the song. The lyrics are written below the notes.

① Black socks, they nev - er get dirt - y. The long - er you wear them, the

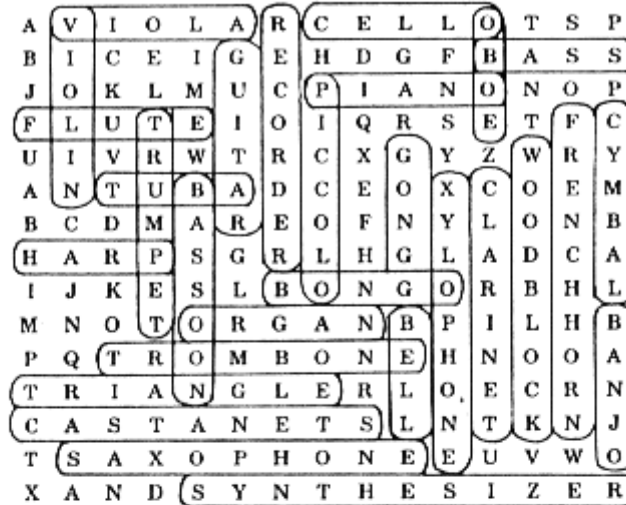
②

③

④ strong - er they get. Some - times I think I should laun - der them.

Some thing keeps tell - ing me, “Don’t wash them yet— not yet— not yet!”

Instrument Wordsearch



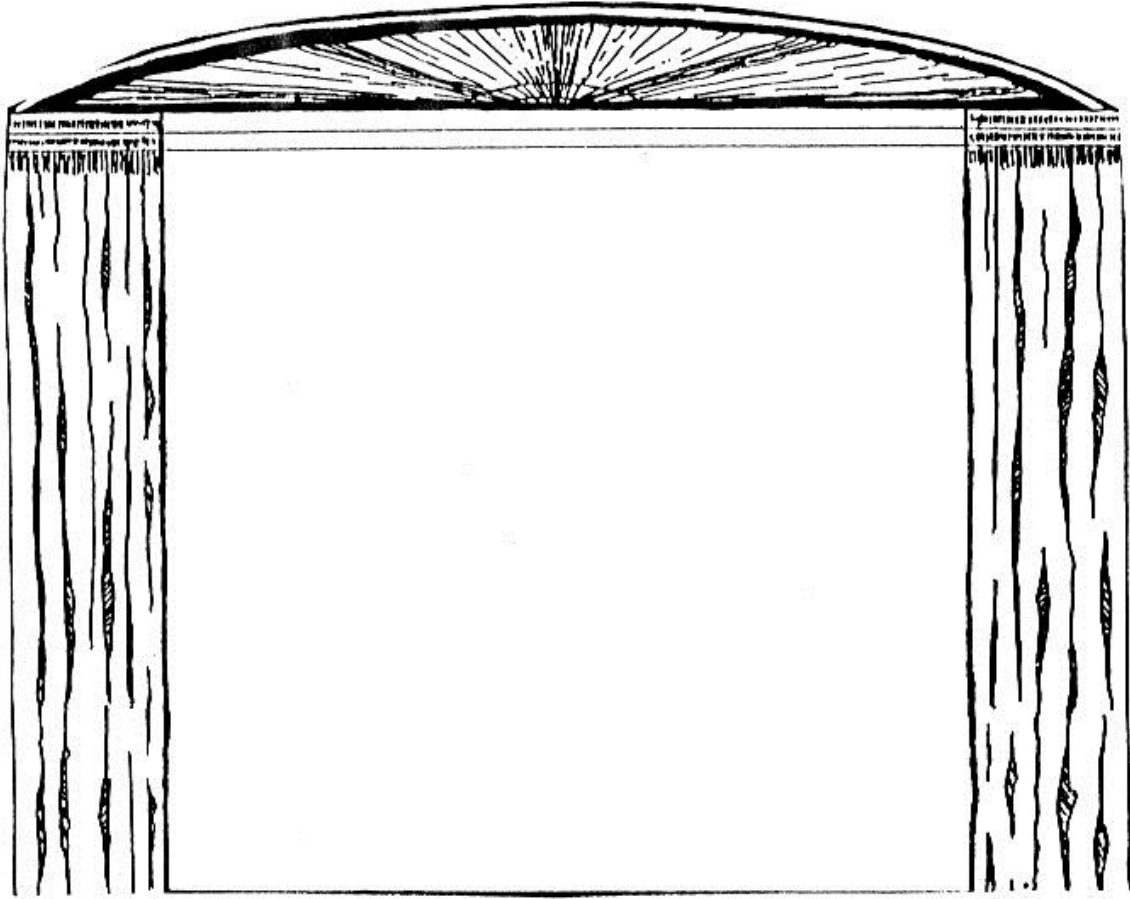
Instrument Family Puzzle

- | | | |
|-------|-------|-------|
| 1. P | 11. P | 21. W |
| 2. B | 12. P | 22. P |
| 3. S | 13. S | 23. W |
| 4. W | 14. P | 24. P |
| 5. S | 15. W | 25. W |
| 6. B | 16. B | 26. P |
| 7. P | 17. W | 27. S |
| 8. W | 18. P | 28. B |
| 9. S | 19. S | 29. P |
| 10. W | 20. P | 30. W |

Instrument Crossword Puzzle

Across:

- | | |
|------------|-------------|
| 1. Viola | 10. Bass |
| 2. Cello | 11. Piccolo |
| 4. Bassoon | 12. Tuba |
| 7. Harp | 13. Organ |
| 8. Drum | 16. Piano |



Draw a picture of someone playing your favorite instrument. Color the picture.

Name _____

CAMELLIA SYMPHONY
ORCHESTRA

2 for 1 Ticket

Buy one ticket, get
the second free.
*The second must be of
Equal or lesser value.*

**CAMELLIA SYMPHONY
ORCHESTRA**

2-For-1 Ticket

Buy one ticket, get the second free.

Second ticket must be of equal or lesser value.