

MUTH 301: Interval and Transposition Worksheet - KEY

1) For the following melody from Bartok's 1st String Quartet, label: a) *directed* pitch intervals; b) undirected pitch intervals mod 12; c) interval classes, or undirected pitch-class intervals.

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|----|--------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| a) | ip<-8> | $\langle -3 \rangle$ | $\langle +1 \rangle$ | $\langle +9 \rangle$ | $\langle +2 \rangle$ | $\langle +1 \rangle$ | $\langle +1 \rangle$ | $\langle -9 \rangle$ | $\langle -2 \rangle$ | $\langle +1 \rangle$ | $\langle +6 \rangle$ | $\langle +2 \rangle$ | $\langle +1 \rangle$ | $\langle +2 \rangle$ | $\langle +1 \rangle$ |
| b) | ip(8) | (3) | (1) | (9) | (2) | (1) | (1) | (9) | (2) | (1) | (6) | (2) | (1) | (2) | (1) |
| c) | i.c.4 | 3 | 1 | 3 | 2 | 1 | 1 | 3 | 2 | 1 | 6 | 2 | 1 | 2 | 1 |

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|----|----------------------|----------------------|-----------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----|-----|-----|
| a) | ip<-8><-26><-1><+30> | $\langle -9 \rangle$ | $\langle -18 \rangle$ | $\langle -1 \rangle$ | $\langle -1 \rangle$ | $\langle +11 \rangle$ | $\langle -1 \rangle$ | $\langle -1 \rangle$ | $\langle +11 \rangle$ | $\langle -1 \rangle$ | $\langle -1 \rangle$ | $\langle +4 \rangle$ | $\langle +1 \rangle$ | $\langle -1 \rangle$ | $\langle -1 \rangle$ | $\langle +4 \rangle$ | $\langle -1 \rangle$ | | | |
| b) | ip(8) | (2) | (1) | (6) | (9) | (6) | (1) | (1) | (11) | (1) | (1) | (11) | (1) | (1) | (4) | (1) | (1) | (1) | (4) | (1) |
| c) | i.c.4 | 2 | 1 | 6 | 3 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 1 | 4 | 1 |

2) Transpositions:

Identify the pitch transposition.

Identify the p.c. transposition.

Construct a T_5 that is *not* also a pitch transposition.

Tp 5	T_{11}	Any G Bb C F# A that is not a Tp
9		