

# LOGIC: VERIFYING QUANTIFIED ARGUMENTS [PIRNOT 3.5]

**EX 3.5.1:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

All musicians are artists.  
Ringo is a musician.  
-----  
 $\therefore$  Ringo is an artist.

---

**EX 3.5.2:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

All musicians are artists.  
Ringo is an artist.  
-----  
 $\therefore$  Ringo is a musician.

---

**EX 3.5.3:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

All musicians are artists.  
Ringo is not an artist.  
-----  
 $\therefore$  Ringo is not a musician.

---

**EX 3.5.4:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

All musicians are artists.  
Ringo is not a musician.  
-----  
 $\therefore$  Ringo is not an artist.

**EX 3.5.5:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

No musicians are artists.

Ringo is a musician.

∴ Ringo is an artist.

---

**EX 3.5.6:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

No musicians are artists.

Ringo is an artist.

∴ Ringo is not a musician.

---

**EX 3.5.7:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

No musicians are artists.

Ringo is not an artist.

∴ Ringo is a musician.

---

**EX 3.5.8:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

No musicians are artists.

Ringo is not a musician.

∴ Ringo is not an artist.

**EX 3.5.9:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

Some musicians are artists.

Ringo is a musician.

---

∴ Ringo is an artist.

---

**EX 3.5.10:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

Some musicians are artists.

Ringo is a musician.

---

∴ Ringo is not an artist.

---

**EX 3.5.11:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

Some animals are large.

Some dangerous animals are large.

---

∴ Some animals are dangerous.

**EX 3.5.12:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

Some animals are large.  
All large animals are dangerous.  

---

∴ Some animals are dangerous.

---

**EX 3.5.13:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

All animals are mortal.  
Some mortals are dangerous.  

---

∴ Some animals are dangerous.

---

**EX 3.5.14:** Using Euler Diagram(s), determine whether the following argument is valid or invalid:

No cats are dangerous.  
Some animals are dangerous.  

---

∴ Some animals are cats.