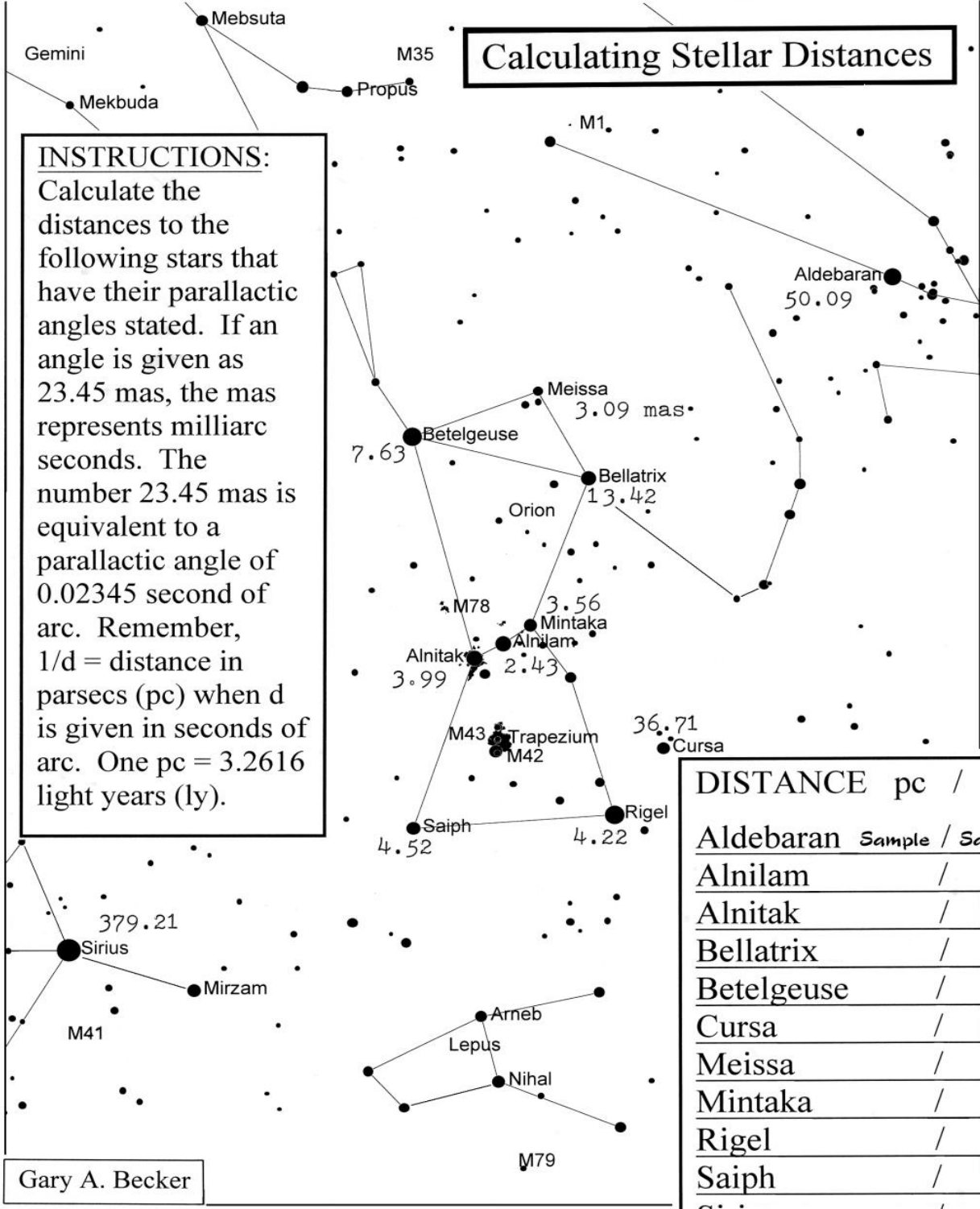


Name _____ Date _____

Calculating Stellar Distances

INSTRUCTIONS:
 Calculate the distances to the following stars that have their parallactic angles stated. If an angle is given as 23.45 mas, the mas represents milliarc seconds. The number 23.45 mas is equivalent to a parallactic angle of 0.02345 second of arc. Remember, $1/d = \text{distance in parsecs (pc)}$ when d is given in seconds of arc. One pc = 3.2616 light years (ly).



DISTANCE pc / ly	
Aldebaran	Sample / Sample
Anilam	/
Alnitak	/
Bellatrix	/
Betelgeuse	/
Cursa	/
Meissa	/
Mintaka	/
Rigel	/
Saiph	/
Sirius	/

Gary A. Becker

Aldebaran = 50.09 mas x $\frac{1''}{1000 \text{ mas}}$ = 0.05009"; $D = \frac{1}{P''} = \frac{1}{0.05009''} = \boxed{19.96 \text{ pc}}$ x 3.2616 $\frac{\text{ly}}{\text{pc}} = \boxed{65.11 \text{ ly}}$
 4 sig. nos.

CALCULATIONS

(Significant numbers/units are necessary)

1. Alnilam =

Sig. Nos. =

2. Alnitak =

Sig. Nos. =

3. Bellatrix =

Sig. Nos. =

4. Betelgeuse =

Sig. Nos. =

5. Cursa =

Sig. Nos. =

6. Meissa =

Sig. Nos. =

7. Mintaka =

Sig. Nos. =

8. Rigel =

Sig. Nos. =

9. Saiph =

Sig. Nos. =

10. Sirius =

Sig. Nos. =