

Name

Date



## PROBLEM SOLVING - NEAREST STARS

The following list contains some of our nearest stars, and their distance from our planet in light years.

STAR	DISTANCE (light years)	DISTANCE (nearest light year)	ORDER OF STARS
Alpha Centauri A	4.37	4	
Barnard's Star	5.96		
Lalande 21185	8.29		
Procyon	11.4		
Proxima Centauri	4.24		
Ross 154	9.68		
Sirius A	8.58		
Wolf 359	7.78		

- 1) Write down the distance of each star from our planet to the nearest light year in the table.
- 2) Write down the order of stars from our planet, from 1 to 8, with 1 being the closest and 8 the furthest away.
- 3) How much further is Ross 154 away from us than Barnard's Star?
- 4) How much closer is Proxima Centauri to us than Wolf 359?
- 5) How much further is Procyon away from us than Sirius A?
- 6) Tyger says "The distance to Proxima Centauri and back is less than the distance to Sirius A." Is this true?
- 7) Tyger says "In the time it takes light to travel from Earth to Procyon, it could get to Barnard's Star and back again." Is he correct?





## PROBLEM SOLVING - NEAREST STARS ANSWERS

STAR	DISTANCE (light years)	DISTANCE (nearest light year)	ORDER OF STARS
Alpha Centauri A	4.37	4	2
Barnard's Star	5.96	6	3
Lalande 21185	8.29	8	5
Procyon	11.4	11	8
Proxima Centauri	4.24	4	1
Ross 154	9.68	10	7
Sirius A	8.58	9	6
Wolf 359	7.78	8	4

1) Write down the distance of each star from our planet to the nearest light year in the table.

2) Write down the order of stars from our planet, from 1 to 8, with 1 being the closest and 8 the furthest away.

3) How much further is Ross 154 away from us than Barnard's Star? **3.72 light years**

4) How much closer is Proxima Centauri to us than Lalande 21185? **4.05 light years**

5) How much further is Procyon away from us than Sirius A? **2.82 light years**

6) Tyger says "The distance to Proxima Centauri and back is less than the distance to Sirius A." Is this true?

**Proxima Centauri x 2 = 8.48 l-y    Sirius A = 8.58 l-y. It is true.**

7) Tyger says "In the time it takes light to travel from Earth to Procyon, it could get to Barnard's Star and back again." Is he correct? **Procyon = 11.4 light years;**

**Barnard's Star x 2 = 11.92 light years. He is incorrect.**

