Name: Date:

WORKSHEET :

Word Problems
Age/Time

1. Maria is now 16 years old. In 6 years, she will be twice as old as her brother is then. How old is her brother now?

A. 5 B. 6 C. 8 D. 11

2. A factory runs nonstop for three 14 hour shifts. The first shift starts at 9:00 AM. At what time does their third shift end?

3. When Larry was 14 years old, his father was 37. Now that Larry's father is twice as old as Larry, how old is Larry?

4. Judy is n years older than Carmen and twice as old as Frances. If Frances is 15, how old is Carmen in terms of n?

5. At 7:00 a.m., the temperature was 12° below zero Fahrenheit. Then the temperature rose 3° per hour for 9 hours. What was the temperature at 2:00 p.m.?

A. 21° B. 9° C. 6° D. 3°

6. If Kate's age is 13 and her mother's age is 31, in how many years will Kate's age once again be the reverse of her mother's?

7. Eva lived 1/5 of her life as a child, 1/4 as a girl and 1/3 as a working adult. She then spent her final 13 years in retirement. How old was Eva when she died?

8. Lindsey is now x years old and Xiu Dan is 2 years older than Lindsey. In terms of x, how old was Xiu Dan 3 years ago?

9. Danielle's mom is 3 less than four times her daughter's age. If M is her mother's age, what is Danielle's age in terms of M?

10. What time will it be 46 hours after 9:30 p.m. on Friday?

ANSWERS :

Word Problems
Age/Time

1. (A) If Maria is 16 now, in 6 years she will be 22. Since she will then (in 6 years) be twice as old as her brother, he will be 11 (in 6 years). To find his present age, subtract 6 from 11. Thus, he is now 5 years old.

2. The original time is 9AM. 3 × 14hr shifts = 42 hours of shifts which is 6 hours less than 2 days or 48 hours. Subtract 6 hours form 9Am and the result is 3AM two days later.

3. L = 14
F = 37 an unkown amount of years, x, in the past. Currently,
F + x = 2(L + x)
37 + x = 2(14 + x) = 28 + 2x
x = 37 - 28 = 9 years
Larry is current 14 + x = 14 + 9 = 23 years old

4. Translate text information to proper equations or math relationships. e.g. J = C + n. Compute values for certain variables from data provided. e.g. F=15, J = 2 × F = 2 × 15 = 30. Solve for required variable. C = J - n = 30 - n

5. (B) At 2:00 p.m., seven hours had passed since the initial temperature reading of -12°. The temperature rose 3° each hour over this sevenhour period, for a total rise of 3° × 7 = 21°. (-12)° + 21° = 9°.

6. The two ages are reverse digits now and they will be the reverse again when we add the same units and tens digit. The lowest number with the same two digits is 11 at which point their ages will be 24 and 42; reverse digits.

7. 1/3 + 1/4 + 1/5 = 20/60 + 15/60 + 12/60 = 47/60 of her life occurred before retirement. Retirement was 13 years which was the last 13/60 of her life. It is probably obvious at this point she lived until 60, but completing the ratio problem....

13/60 = 13/Age ...so Age = (13/13) × 60 = 60

8. If Lindsey is now x years old and Xiu Dan is 2 years older, he is now x + 2. Therefore, 3 years ago his age was x + 2 - 3, or x - 1.

9. Danielle's age can be represented by variable D. If her mother's age M is 3 less than 4 times D then M = 4D - 3.
We need to solve for D in terms of M in order to answer the question.
4D = M + 3
D = (M + 3)/4

10. The quickest solution is to first "round up" from 46 hours to 48 hours, because 48 hours is 2 full days. Thus, 48 hours after 9:30 p.m. on Friday would be 9:30 p.m. on Sunday. Since the question asks for 46 hours, subtract 2 hours from 9:30 p.m. Sunday to get 7:30 p.m. Sunday.

KEY CONCEPTS:

Learn to setup and solve word problems related to age and time.