Name _____ Section: ____

LESSON 4-5

Squares and Square Roots Worksheet

Find the two square roots of each number.

1. 36 _____
2. 81 _____
3. 49 _____
4. 100 _____
5. 64 _____
6. 121 _____
7. 25 _____
8. 144 _____

no calculator

Simplify each expression.

9. $\sqrt{32+17}$ _____
10. $\sqrt{100-19}$ _____
11. $\sqrt{64+36}$ _____
12. $\sqrt{73-48}$ _____
13. $2\sqrt{64}+10$ _____
14. $36-\sqrt{36}$ _____
15. $\sqrt{100}-\sqrt{25}$ _____
16. $\sqrt{121}+16$ _____
17. $\sqrt{\frac{25}{4}}+\frac{1}{2}$ _____
18. $\sqrt{\frac{100}{25}}$ _____
19. $\sqrt{\frac{196}{49}}$ _____
20. $3(\sqrt{144}-6)$ _____

The Pyramids of Egypt are often called the first wonder of the world. This group of pyramids consists of Menkaura, Khufu, and Khafra. The largest of these is Khufu, sometimes called Cheops. During this time in history, each monarch had his own pyramid built to bury his mummified body. Cheops was a king of Egypt in the early 26th century B.C. His pyramid's original height is estimated to have been 482 ft. It is now approximately 450 ft. The estimated completion date of this structure was 2660 B.C.

21. If the area of the base of Cheops' pyramid is 570.025 ft^2, what is the length of one of the sides of the ancient structure?

calculator allowed

_____

22. If a replica of the pyramid were built with a base area of 625 in^2, what would be the length of each side?

_____

LESSON 4-6

Estimating Square Roots

Each square root is between two consecutive integers. Name the integers.

Circle the one it is closest to.

1. $\sqrt{6}$ _____
2. $\sqrt{20}$ _____
3. $\sqrt{28}$ _____
4. $\sqrt{44}$ _____
5. $\sqrt{31}$ _____
6. $\sqrt{52}$ _____
7. The area of a square piece of cardboard is 70 cm^2. What is the approximate length of each side of the cardboard?

_____

Approximate each square root to the nearest hundredth.

8. $\sqrt{63}$ _____
9. $\sqrt{18}$ _____
10. $\sqrt{87}$ _____
11. $\sqrt{319}$ _____

Use a calculator to find each value. Round to the nearest tenth.

12. $\sqrt{14}$ _____
13. $\sqrt{42}$ _____
14. $\sqrt{21}$ _____
15. $\sqrt{47}$ _____
16. $\sqrt{58}$ _____
17. $\sqrt{60}$ _____
18. $\sqrt{35}$ _____
19. $\sqrt{75}$ _____

Simplify:

20) $\sqrt{18}$

21) $\sqrt{27}$

22) $\sqrt{32}$

23) $\sqrt{75}$

24) $\sqrt{28}$

25) $\sqrt{10}$

26) $\sqrt{5}$

27) $\sqrt{200}$

28) $\sqrt{54}$

29) $\sqrt{98}$

30) $\sqrt{72}$

31) $\sqrt{50}$

no akulator

calculator needed