

Prealgebra
Chapter 1 Test

Friday, September 11, 2009

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You can use your calculator!

Show work when needed. Please circle your answer.

~~59~~ total points

① 1. In the number 345,678, which digit is in the thousands place? 5

4pt 2. Write in expanded notation: 5698.

14pt

Add:

① 3. $29 + 36 =$
65

④ 4. $108 + 21 =$
129

⑤ 5. $397 + 46 =$
443

Multiply:

① 9. $31 \cdot 8 =$
248

① 10. $256 \cdot 71 =$
18,176

① 11. $907 \cdot 69 =$
62,583

Subtract:

① 6. $896 - 45 =$
851

⑦ 7. $208 - 69 =$
139

① 8. $1079 - 215 =$
864

Divide (be sure to show remainder if needed):

① 12. $45 \div 9 =$
5

③ 13. $1376 \div 12 =$
114 R 8

check $114 \cdot 12 = 1368$
 $+ 8 = 1376$

③ 14. $825 \div 9 =$
91 R 6

check $91 \cdot 9 = 819$
 $+ 6 = 825$

12pt

Solve (show all work for credit).

② 15. $x + 21 = 56$
 $x + 21 - 21 = 56 - 21$
 $x = 35$

⑤ 16. $36 = x + 5$
 $36 - 5 = x + 5 - 5$
 $31 = x$

⑤ 17. $x + 10 = 42$
 $x + 10 - 10 = 42 - 10$
 $x = 32$

② 18. $6 \cdot x = 36$
 $\frac{6}{6} \frac{36}{6}$
 $x = 6$

③ 19. $\frac{81}{3} = \frac{3 \cdot x}{3}$
 $27 = x$

② 20. $\frac{7 \cdot x}{7} = \frac{42}{7}$
 $x = 6$

31 pt

5 pts

Simplify (show all your work for full credit):

21. $(32 - 27)^3 + (19 + 1)^3 =$
 $(5)^3 + (20)^3 =$
 $125 + 8000 = 8125$

2 pts

22. $23 + 18 \cdot 20 =$
 $23 + 360 = 383$

2 pt

23. $1000 \div 25 - (15 + 5) =$
 $1000 \div 25 - 20 =$
 $40 - 20 = 20$

3 pts

24. Find the average of four test grades of 86, 92, 80, and 78.
 $\frac{86 + 92 + 80 + 78}{4} = \frac{336}{4} = 84$

Use < or > for to write a true sentence.

1 pt

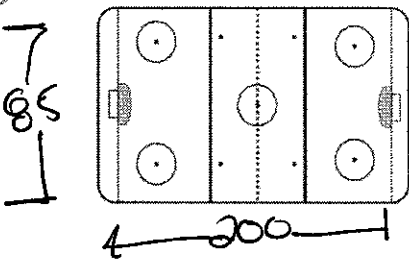
25. $36 < 54$

1 pt

26. $21 < 55$

4 pts

27. Ice hockey is played on standard size rink which measures 200 feet by 85 feet. Find the area and perimeter of a standard-sized hockey rink. Show your work. Make sure to show correct units.

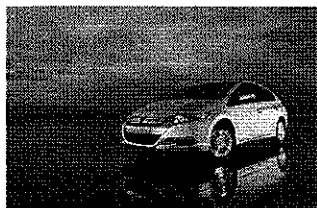


Area =
 $200 \cdot 85$
 $17,000 \text{ ft}^2$

Perimeter =
 $200 + 200 + 85 + 85$
 570 ft

8 pts

28. The 2010 Honda Insight hybrid vehicle has an official EPA rating of 40 mpg in the city and 43 miles per gallon on the highway.



How many gallons will it use in 5375 miles of highway driving?

$\rightarrow \frac{5375 \text{ miles}}{43 \text{ mpg}} = 125 \text{ gallons}$

How many gallons will it use in 3040 miles of city driving?

$\rightarrow \frac{3040 \text{ miles}}{40} = 76 \text{ gallons}$

2 pts