## Exponents and Equations Review

Name: $\qquad$

1. Which expression is equivalent to $3^{2} \times 4^{2} \times 3^{4}$ ?
A. $3^{6} \times 4^{2}$
B. $3^{8} \times 4^{2}$
C. $7^{2} \times 3^{4}$
D. $36^{8}$
2. Which of the following is equivalent to $\left(2^{5} \times 3^{2}\right)^{3}$ ?
A. $2^{8} \times 3^{5}$
B. $2^{8} \times 3^{6}$
C. $2^{15} \times 3^{5}$
D. $2^{15} \times 3^{6}$
3. $\left(\frac{2}{3}\right)^{4}=$
A. $\frac{8}{81}$
B. $\frac{16}{81}$
C. $\frac{8}{3}$
D. $\frac{16}{3}$
4. $\frac{4^{2} \cdot 3^{5} \cdot 2^{4}}{4^{3} \cdot 3^{5} \cdot 2^{2}}=$
A. $\frac{4}{2}$
B. $\frac{3}{2}$
C. 1
D. $\frac{1}{2}$
5. Which of the following is equivalent to the expression shown below?

$$
\frac{\left(2^{4}\right)\left(2^{7}\right)}{2^{6}}
$$

A. $2^{22}$
B. $2^{17}$
C. $2^{14}$
D. $2^{5}$
6. What is the value of the expression shown below?

$$
4 \times[(6+4) \times 10]+16 \div 2^{3}
$$

A. 52
B. 69.3
C. 402
D. 800
7. What is the simplified form of the expression $14-28 \div 7+(3+2)^{2}$ ?
A. 46
B. 35
C. 23
D. 20

Date: $\qquad$
8. What is the solution to the equation?

$$
\frac{7}{2} x-2=28-4 x
$$

A. $x=0$
B. $x=\frac{2}{7}$
C. $x=4$
D. $x=7$
9. What is the solution to the equation below?

$$
\frac{x}{4}=\frac{x+1}{3}
$$

A. $x=-4$
B. $x=-1$
C. $x=\frac{1}{7}$
D. $x=\frac{4}{7}$
10. What value of $x$ satisfies the equation $\frac{-4 x-2}{3}=-6$
A. -16
B. -12
C. 0
D. 4
11. $2 \frac{1}{3}+4 \frac{1}{2}=$
A. $6 \frac{1}{6}$
B. $6 \frac{1}{5}$
C. $6 \frac{2}{5}$
D. $6 \frac{5}{6}$
12. $\frac{3}{8}+\frac{1}{12}$
A. $\frac{1}{5}$
B. $\frac{1}{6}$
C. $\frac{11}{24}$
D. $\frac{11}{48}$
13. What is the solution to the problem below, in lowest terms?

$$
\frac{8}{9} \div \frac{2}{7}=
$$

A. $\frac{4}{63}$
B. $\frac{16}{63}$
C. $3 \frac{1}{9}$
D. $3 \frac{2}{9}$
14. What is the product of $\frac{2}{5}$ and $\frac{4}{5}$ ?
A. $\frac{1}{5}$
B. $\frac{8}{25}$
C. $\frac{1}{2}$
D. $\frac{6}{5}$

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1.

Answer: A
2.

Answer: D
3.

Answer: B
4.

Answer: C
5.

Answer: D
6.

Answer: C
7.

Answer: B
8.

Answer: C
9.

Answer: A
10.

Answer: D
11.

Answer: D
12.

Answer: C
13.

Answer: C
14.

Answer: B

