1. Evaluate the following when $m = 6$.

a) $7m$ $7 \cdot 6$ 42

b) $m + 2.3$ $6 + 2.3$ 8.3

c) $19 - m$ $19 - 6$ 13

d) $\frac{30}{m}$ $\frac{30}{6} = 5$

2. Evaluate $(c - d)^3$ when $c = 9$ and $d = 7$.

$(9 - 7)^3 = 2^3 = 8$

3. Evaluate $e^4 + h^2$ when $e = 2$ and $h = 5$.

$2^4 + 5^2 = 16 + 25 = 41$

4. To find speed, or how many miles per hour a vehicle can travel, you can use the expression $\frac{d}{t}$, where d is the distance in miles and t is the time in hours. Find the speed of a truck that travels 260 miles in 4 hours.

$\frac{260 \text{ miles}}{4 \text{ hr}} = 65 \text{ mph}$

5. Convert 9 weeks to days.

$\frac{9 \text{ weeks}}{1} \cdot \frac{7 \text{ days}}{1 \text{ week}} = 63 \text{ days}$

6. Convert 120 hours to days.

$$\frac{120 \text{ hours}}{1} \cdot \frac{1 \text{ day}}{24 \text{ hrs}} = \frac{120}{24} \text{ days}$$

$$\downarrow$$

5 days

7. Convert 2 years to hours.

$$\frac{2 \text{ years}}{1} \cdot \frac{365 \text{ days}}{1 \text{ year}} \cdot \frac{24 \text{ hours}}{1 \text{ day}} = \frac{17,520}{1}$$

$$\downarrow$$

17,520 hours

8. Write the expression in exponential form.

$14 \cdot g \cdot g \cdot g \cdot g \cdot g$ $14g^5$

9. Write the expression in exponential form.

$7w \cdot 7w \cdot 7w \cdot 7w \cdot 7w \cdot 7w \cdot 7w \cdot 7w \cdot 7w$

$7^9 w^9$ or $(7w)^9$

10. Evaluate: $8 + 4^3 \div 8 - 3$

$8 + 64 \div 8 - 3$

$8 + 8 - 3$

$16 - 3$

13

11. Evaluate: $4 \cdot 9 - 30 \div 6$

$36 - 30 \div 6$

$36 - 5$

31

12. Evaluate: $4(2+3)^2 + \frac{50}{5}$

$4(5)^2 + \frac{50}{5}$

$4 \cdot 25 + \frac{50}{5}$

$100 + \frac{50}{5}$

$100 + 10$

110

13. Evaluate: $2\left[(9+5)-12\right]\div 4$

$2[14-12]\div 4$

$2\cdot 2\div 4$

$4\div 4$

1

14. Evaluate: $\dfrac{3^2+(6-5)}{8\div 4+3}$

$\dfrac{3^2+1}{2+3}=\dfrac{9+1}{5}=\dfrac{10}{5}$

$\downarrow$

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