

Grade 7 Hon Prep Work  
6.7 Ch. Pr. Evaluating Express.

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Evaluate  $3m + 5$  if  $m = 7$ .
2. Evaluate  $5 \cdot (2n - 3)$  if  $n = 5$ .
3. Evaluate  $3 + 2(a - 4)$  if  $a = -7$ .
4. Evaluate  $\frac{n + 5}{n}$  if  $n = 3$ . Express your answer as a mixed number.
5. Evaluate  $\frac{1}{a} + 3a$  if  $a = \frac{1}{2}$ . Express your answer as a mixed number.
6. Evaluate  $a^2 + ab$  if  $a = 4$  and  $b = -2$ .
7. Evaluate  $(a + b)^2$  if  $a = \frac{1}{2}$  and  $b = \frac{1}{3}$ .

8. Evaluate  $\frac{(m-n)^2}{n}$  if  $m = -\frac{1}{2}$  and  $n = \frac{1}{3}$ .

9. If  $n = \frac{1}{2}$ , evaluate  $\frac{n}{2} + \frac{n}{3}$ .

10. Evaluate  $3^{2n} \cdot 3^n$  if  $n = \frac{1}{3}$ .

11. If  $x = \frac{2}{3}$ , express  $\frac{1}{x}$  as a mixed number.

12. Evaluate the expression if  $x = 2$  and  $y = 3$ :

$$xy - 2 \div x \cdot y + y$$

13. Give the common fraction equivalent to

$$\frac{5x + 2y}{10x + 4y},$$

if  $x = 21$  and  $y = 19$ .

14. Evaluate  $x^2 + 2xy + y^2$  if  $x = 7\frac{4}{5}$  and  $y = 2\frac{1}{5}$ .

15. If  $k = \frac{1}{3}$ , evaluate:

$$\frac{1}{k} + \frac{1}{2k}$$

Express your answer as a mixed number.

16. Evaluate  $\frac{n^3}{n}$  if  $n = \frac{7}{8}$ . Express your answer as a common fraction.

17. Evaluate if  $u = 4$  and  $v = 5$ :

$$\frac{(2v)^2}{3u^2} \cdot \frac{3(u-2)^2 + 6v}{u + (u-2)^2}$$

Express your answer as common fraction.

18. Find the value of  $(y^y)^{(y^y)}$  when  $y = 2$ .

19. If  $12a + 10b = 1020$ , what is the value of  $\frac{a}{5} + \frac{b}{6}$ ?

20. If  $\frac{a}{b} = 12$  and  $\frac{b}{c} = 20$ , what is the value of  $\frac{a}{b+c}$ ? Express your answer as a decimal to the nearest tenth.

**Answer List**

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|---------------------|----------------------|--------------------|
| 1. 26               | 2. 35                | 3. -19             |
| 4. $2\frac{2}{3}$   | 5. $3\frac{1}{2}$    | 6. 8               |
| 7. $\frac{25}{36}$  | 8. $\frac{25}{12}$   | 9. $\frac{5}{12}$  |
| 10. 3               | 11. $1\frac{1}{2}$   | 12. 6              |
| 13. $\frac{1}{2}$   | 14. 100              | 15. $4\frac{1}{2}$ |
| 16. $\frac{49}{64}$ | 17. $\frac{175}{16}$ | 18. 256            |
| 19. 17              | 20. 11.4             |                    |

**Catalog List**

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|---------------|---------------|---------------|
| 1. MCH BB 1   | 2. MCH BB 2   | 3. MCH BB 3   |
| 4. MCH BB 4   | 5. MCH BB 5   | 6. MCH BB 6   |
| 7. MCH BB 7   | 8. MCH BB 9   | 9. MCH BB 10  |
| 10. MCH BB 11 | 11. MCH BB 12 | 12. MCH BB 13 |
| 13. MCH BB 27 | 14. MCH BB 17 | 15. MCH BB 26 |
| 16. MCH BB 31 | 17. MCH BB 54 | 18. MCH BB 46 |
| 19. MCH BB 88 | 20. MCH BB 92 |               |