

Name : \_\_\_\_\_

## Expanded Sum

Sheet 1

Rewrite each series as an expanded sum.

1)  $\sum_{d=2}^7 (d^2 + 1)$

2)  $\sum_{y=1}^4 (5y^2 - 1)$

3)  $\sum_{g=0}^3 (8^g \cdot 2!)$

4)  $\sum_{h=3}^8 ((1 - 2^h) \cdot 3!)$

5)  $\sum_{t=1}^5 \left( \frac{9 + 2t}{5} \right)$

6)  $\sum_{x=0}^4 \frac{6^x}{3}$

7)  $\sum_{r=3}^6 (\sqrt{3} \cdot r^2)$

8)  $\sum_{a=4}^9 (0.5a - 4)$

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## Answer key

Sheet 1

### Expanded Sum

Rewrite each series as an expanded sum.

1)  $\sum_{d=2}^7 (d^2 + 1)$

**$5 + 10 + 17 + 26 + 37 + 50$**

2)  $\sum_{y=1}^4 (5y^2 - 1)$

**$4 + 19 + 44 + 79$**

3)  $\sum_{g=0}^3 (8^g \cdot 2!)$

**$2 + 16 + 128 + 1024$**

4)  $\sum_{h=3}^8 ((1 - 2^h) \cdot 3!)$

**$-42 - 90 - 186 - 378 - 762 - 1530$**

5)  $\sum_{t=1}^5 \left(\frac{9 + 2t}{5}\right)$

**$\frac{11}{5} + \frac{13}{5} + 3 + \frac{17}{5} + \frac{19}{5}$**

6)  $\sum_{x=0}^4 \frac{6^x}{3}$

**$\frac{1}{3} + 2 + 12 + 72 + 432$**

7)  $\sum_{r=3}^6 (\sqrt{3} \cdot r^2)$

**$9\sqrt{3} + 16\sqrt{3} + 25\sqrt{3} + 36\sqrt{3}$**

8)  $\sum_{a=4}^9 (0.5a - 4)$

**$-2 - 1.5 - 1 - 0.5 + 0 + 0.5$**