MARKS

NAME:

CLASS:

BINOMIAL EXPANSIONS

FORMULAE

$$(a+b)^n = \binom{n}{0}a^n b^0 + \binom{n}{1}a^{n-1}b + \binom{n}{2}a^{n-2}b^2 + \binom{n}{3}a^{n-3}b^r + \ldots + \binom{n}{n}a^0 b^n$$

Write your answer in the box.

1 Expand $(1+2x)^3$

= ☐ 1 ☐ (2x) ☐ + ☐ 1 ☐ ( ) ☐ + ☐ 1 ☐ ( ) ☐ + ☐ 1 ☐ (2x) ☐

= ☐ + ☐ x + ☐ x^2 + ☐ x^3

2 Expand $(2-x)^4$

= ☐ 4 - ☐ x^3 + ☐ x^2 - ☐ x + ☐

3 Expand $\left(5-\frac{1}{x}\right)^3$

= ☐ $-\frac{☐}{x} + \frac{☐}{x^2} - \frac{☐}{x^3}$

4 Expand $(x^2-2y)^4$

= ☐ ☐ - ☐ x ☐ y ☐ + ☐ x ☐ y ☐ - ☐ x ☐ y ☐ + ☐ y ☐

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