

1 (i) 8 polynomial

(ii) $\sqrt{3}x^2 - 2x$ poly.

(iii) $1 - \sqrt{5}x$ not a poly.

(iv) $\frac{1}{5x^{-2}} + 5x + 7$ Poly.

(v) $\frac{(x-2)(x-4)}{x}$ not a poly.

(vi) $\frac{1}{x+1}$ not a poly.

(vii) $\frac{1}{7}a^3 - \frac{2}{\sqrt{3}}a^2 + 4a - 7$
Poly.

(viii) $\frac{1}{2x}$ not a poly.

(i), (ii), (iv), (vii) are polynomials, because power of variable while in numerator or are whole numbers

2 (i) False.
 \because a binomial has exactly 2 terms

2 (ii) False

$2x^2 + 3x + 4$ is a polynomial but not a binomial

2 (iii) true
eg. $x^5 + 3$

2 (iv) false
zero of polynomial can be any real no.

2 (v) false
no. of zeros of a poly. depends upon its degree.

2 (vi) false
eg let two polys of degree 5 be
 $3x^5 + 5$, $-3x^5 + 11$
Sum = $3x^5 + 5 - 3x^5 + 11$
 $= 16$
which is a poly. of degree 0